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Multivariate Analyses of Social and Religious Attitudes.

Roger Arnold Meyer

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MULTIVARIATE ANALYSES OF SOCIAL
AND RELIGIOUS ATTITUDES

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Psychology

by
Roger Arnold Meyer
B.A., Milligan College, 1966
M.A., Louisiana State University, 1972
December, 1974

DEDICATION

I would like to dedicate this volume to my mother, Hazel E. Meyer, for the early inspiration she gave me to seek and education.

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I would like to express my appreciation for, and to acknowledge the assistance of, the members of my committee: Drs. Hubert Campbell, Ralph Dreger, Perry Prestholdt, and Felicia Pryor. I would like to express special notes of thanks to Dr. Kenneth Koonce for his help with my statistics and to Dr. Joseph G. Dawson, my major professor, for his guidance.

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I would like to thank Mrs. Mary Mevers for typing the final draft. Most of all, I would like to thank my wife, Lynn, for her many hours of typing, editing, and other assistance. And, I must sincerely express my gratitude for her patience and understanding throughout the year and a half this project has taken.

TABLE OF CONTENTS

	Page
TITLE PAGE	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	vi
ABSTRACT	viii
INTRODUCTION	1
The Problem	1
Deriving Scales from Allport's Theory	3
Other Studies Using Allport's Scales	5
Studies of Prejudice Using Allport's Scales	6
Present Study	10
Hypotheses	15
METHOD	22
Battery of Scales	22
Subjects	27
Procedure	32
Analysis	34
RESULTS	36
Simple Statistics	36
Indiscriminately Pro-Religious	36
Manova	39
Anova	47
Canonical Correlation of 20 Variables	52
Relationships Among Dependent Variables	59
DISCUSSION	64
Hypotheses	64
Hunt and King's Questions	67
Other Questions	70
Generalizability	72

	Page
CONCLUSIONS.	74
BIBLIOGRAPHY	76
APPENDICES	82
VITA	135

LIST OF TABLES

Table	Page
1. Breakdown of Variable Groupings into Independent and Dependent Variables and Subgroups within these two Groups: Showing Numbers of Levels for Each Independent Variable for MANOVA and CANCELL Analyses and Number of Items and Scale Limits for Dependent Variables	25
2. Breakdown of Scales within Battery: Items within Each Scale Given by Battery Item Number.	26
3. Number of Subjects: Breakdown by Religious Variables Giving the Number of <u>Ss</u> for Each Category of Both the CANCELL and MANOVA Analyses	28
4. Number of Subjects: Breakdown by Demographic Variables Giving the Number of <u>Ss</u> for Each Category of Both the CANCELL and MANOVA Analyses	30
5. Schools Sampled: Seminaries and Universities from Which <u>Ss</u> Drawn.	33
6. Simple Statistics for all Continuous Variables: Mean, Corrected Sum of Squares, Variance, and Standard Deviation	37
7. Student's <u>t</u> for Differences in Sample and Expected Means: With Standard Deviation of Sample Mean and Probability the Difference is Due to Chance	38
8. Means of Indiscriminately Pro-religious <u>Ss</u> for All Continuous Variables.	40
9. MANOVA Tests for the Hypothesis of No Overall Effect Due to the Independent Variables: Criteria Based on Hotelling-Lawley's Trace.	41
10. Correlation Coefficients Between Each Meaningful Canonical Variable Due to Significant MANOVA Effects and the Dependent Variables	43

Table	Page
11. Univariate Analysis of Variance for All Variables Included in the MANOVA Analysis: Degrees of Freedom, Mean Squares, and Levels of Significance.	48
12. Canonical Correlation Analysis for 8 Independent and 12 Dependent Variables Giving All Canonical Variables: Means of Each Group, Chi-Square, Degrees of Freedom, and Probability that Chi-Square is Due to Chance.	53
13. Correlation Coefficients Between Each Canonical Variable and the Variables of the Groups for the 20 Variable Analysis: Canonical Variables with Meaningfully Correlated Means.	55
14. Partial Correlation Coefficients of the 12 Dependent Variables: From Y'Y Matrix Adjusted for All Independent Variables	60
15. Canonical Correlation Analysis of 12 Dependent Variables: Correlation Coefficients between Canonical Variables and Dependent Variables	61
16. Canonical Correlation Analysis of 12 Dependent Variables: Means of Both Groups, Chi-Square, Degrees of Freedom, and Probability Chi-Square is Due to Chance	62

ABSTRACT

The relationship between religious attitudes or orientations and prejudice was the general focus of this study. It is based on the theorizing of Gordon Allport concerning intrinsic and extrinsic religiosity. Multivariate techniques were used to clarify relationships.

The Committed-Nominal Religious Attitude Scale (C-NRAS) a six factor instrument developed by the author in a previous study was used along with Allport's Religious Orientation Scales (ROS). Other dependent measures were a Religious Fundamentalism Scale (RFS, after Dynes), an Altered Ethnocentrism Scale (AES, after Levinson), Rokeach's Dogmatism Scale (DS), and Crowne and Marlowe's Social Desirability Scale (SDS). These were included in a 227 item battery.

The 337 subjects were from four basic sources: college males, lay men from local congregations, seminary students, and ministers from local congregations. The subjects were from four cities: New Orleans and Baton Rouge, Louisiana, and Dallas and Austin, Texas.

The Statistical Analysis System (SAS, Barr & Goodnight) MANOVA and CANCELL routines were used. The MANOVA options used were SIMPLE, CORR, ANOVA, MANCORR, MANMEANS AND CANCELL. Two canonical correlation analyses were run: an overall analysis of 20 variables and an analysis of only the 12 dependent variables. Variables were categorized for the MANOVA analysis, but the continuous variables were run using the raw scores for the CANCELL analysis. Twelve general hypotheses were put

forth concerning expected canonical variables, MANOVA main effects, ANOVA effects, and the differences between the means for the four major groups of subjects.

A general canonical factor was found in the 20 item overall canonical correlation analysis which included the three committed C-NRAS factors, the ROS Intrinsic subscale and fundamentalism (RFS). It was also related to older, politically conservative, educated, subjects who held a position of leadership in the church and who attended worship services and other church functions frequently. A similar factor was found in the 12 dependent variable canonical correlation analysis. A canonical factor which related the three nominal C-NRAS factors to the ROS Extrinsic subscale, ethnocentrism and dogmatism was found from the 12 dependent variable canonical correlation analysis. Another canonical factor from the 20 variable overall analysis found one C-NRAS nominal factor related to fundamentalism, ethnocentrism, dogmatism, political conservatism, and lower levels of: religious leadership, social status and education. The three committed C-NRAS factors were related to fundamentalism and somewhat to ROS Intrinsic in another factor from the overall canonical correlation analysis. They were also related to frequent attendance of worship services and other church functions, positions of church leadership and to younger subjects.

The multiple analysis of variance found the variables of age, social status as measured by the McGuire-White index, the number of services attended, the number of functions attended and political position significant. The manova canonical loadings and the univariate analysis of variance results indicated that the six C-NRAS factors

yielded more information than the two ROS subscales and had stronger relationships to other variables.

In a review of Allport's concepts of intrinsic and extrinsic religious orientation, Hunt and King posed four basic questions which they answered from earlier research. The present study tended to confirm most of their conclusions. However, the components in the present study, which were found empirically in an earlier study by the author, differ from the logical components suggested by Hunt and King.

INTRODUCTION

The Problem

The paradoxical relationship between religion and prejudice has been under investigation for many years. Publication of The Authoritarian Personality in 1950 (Adorno, et al.) surfaced a relationship that immediately became embroiled in controversy. In a study of ethnocentrism reported in that volume Sanford found that religious Ss were more ethnocentric than non-religious subjects. This finding directly contradicted the teaching of brotherly love which is basic to Christian tradition to which all Ss adhered. Since that time numerous other studies have found similar results. However, some of the investigators in religious attitudes have felt that this relationship has been too simplified and have found that religion and prejudice are not directly related but are only two of several factors involved in a complex system of relationships (reviews in Allen & Spilka, 1967; Allport, 1967; Dittes, 1969; Glock & Stark, 1969).

Allport has done a great deal of work concerning this problem. In The Nature of Prejudice (1954), he presented some of his earlier research (Allport & Kramer, 1946) and outlined his initial ideas concerning the theory that there are two types of religiosity. This theory was further delineated by Allport (1959) when he presented his ideas of intrinsic and extrinsic religiosity. His ideas were further developed with his students at Harvard and are presented in a series of articles

(Allport, 1960, 1962, 1963, 1966a, b, 1967).

Allport's basic ideas are presented together in The Person in Psychology (1968) where four of the above articles are reprinted. The basic concepts that Allport puts forth are: that prejudice is based in the personality as well as in societal causes, that religion contributes to prejudice on a social level but that religion contributes to open-mindedness on a dynamic level. He sees any individual as being associated with religion on two dimensions; intrinsic and extrinsic. Persons who are highly extrinsic "are disposed to use religion for their own ends. . . . Extrinsic values are always instrumental and utilitarian. Persons with this orientation may find religion useful in a variety of ways--to provide security and solace, sociability and distraction, status and self-justification" (Allport & Ross, 1967, p. 434). Persons who are highly intrinsic ". . . find their master motive in religion. Other needs, strong as they may be, are regarded as of less ultimate significance, and they are so far as possible, brought into harmony with the religious beliefs and prescriptions" (Allport & Ross, 1967, p. 434).

Feagin (1964) has shown that intrinsic and extrinsic religiosity are two separate dimensions, a finding confirmed by Allport and Ross (1967) and Meyer (1972). Allport and Ross (1967) found a group which scores high on the extrinsic and higher than expected on the intrinsic scale. They named this group "indiscriminately pro-religious" and found that they are the most prejudiced of all groups. Allport has developed a theory concerning the relationships between religiosity and

prejudice. He feels that intrinsic church members who attend church at least once a week are less prejudiced than the majority of church members who attend church irregularly and are extrinsically motivated. In several studies non-church attenders have been shown to be less prejudiced than church attenders (see Dittes, 1969). Therefore, Allport proposes a curvilinear relationship between church attendance and prejudice based on his thinking that as their attendance increases, church members will be more intrinsic and less prejudiced. Several other authors have hypothesized types of religiosity similar to Allport's (see Meyer, 1972).

Deriving Scales from Allport's Theory

Allport's theory was first tested by Wilson (1960). He used a 15 item scale which reflected only extrinsic religiosity. From 10 religious groups with a total N of 207, he had a median correlation of .65 between his scale and anti-Semitism and a range of correlations from .41 to .72. He found that religious conservatism was significantly correlated with anti-Semitism in only three groups at a .05 or greater level. His efforts can be criticized because all of his items were worded in a unidirectional manner and so would be biased by any response sets. But more importantly, he falsely assumed that intrinsic religiosity would be the opposite of extrinsic on the same dimension. He also used only one minority, Jews, as the object of prejudice. Reliability of the scale, using split-half coefficients, is adequate for all but Catholics, being .80 or better for seven of eight Protestant groups.

Another test of Allport's theory is found in Feagin (1964). He designed a scale to measure intrinsic and extrinsic religious orientation. It is a 21 item scale, nine intrinsic and twelve extrinsic items, based on Wilson's. It is the same as that used in the present research. Feagin found item to scale reliabilities of .22 to .54 and noticed that certain items tended to fall into two clusters with higher correlations. He factor analyzed the data and found two factors, one intrinsic and one extrinsic, with increased correlations of the items to these subscales, ranging from .71 downward. He found that both his total scale and the extrinsic scale correlated significantly with the California E Scale at .25 and .35 respectively for his total group of Ss. He found a correlation of .35 between the E scale and a fundamentalism scale (similar to that used in the present research). Feagin's findings are limited mainly by the fact that he did not foresee that intrinsic and extrinsic religiosity are two separate dimensions.

Allport and Ross (1967) used the same scale as Feagin to measure intrinsic and extrinsic religiosity. They omitted one item without explanation. Using an unpublished questionnaire by Harding and Schuman (see Schuman & Harding, 1963, 1964), Gilbert and Levinson's (1956) Custodial Mental Illness Ideology Scale, and a "jungle philosophy of life" scale, Allport and Ross found a .21 correlation between their extrinsic religiosity scale and these measures. They also found only a .21 correlation between their two subscales. They were able to increase this correlation between subscales by partialling out the rather large group which was "indiscriminately pro-religious." This left significant

differences for all Fs for the dependent measures across the three religiosity types and for the MANOVA main effects of religious types and sample groups. While this study corrected the weakness of Feagin's study for dependent measures, it still used the same religiosity scale. It found only a low correlation between extrinsic religiosity and ethnocentrism, a finding which was not expected. It also brought out post hoc the "indiscriminately pro-religious" group.

Other Studies Using Allport's Scale

The Religious Orientation Scale (ROS) by Allport and Ross (1967) and Feagin's (1964) earlier version have since been used in several studies. While most have continued to investigate the relationship between intrinsic and extrinsic orientation and prejudice, using various other scales, a few have gone on to measure the relationship between these scales and other variables.

Rice (1971) used the 21 item Feagin scale with 3 additional items in a study of mental health and religious orientation. He found the indiscriminately anti-religious group to be slightly "healthier" on selected criteria than the intrinsic group. Both of these were "healthier" than the extrinsic and indiscriminately pro-religious groups. He criticizes Allport's scale, particularly the absence of the indiscriminately anti-religious group and the fact that the intrinsic-extrinsic dichotomy does not distinguish between a man's religious orientation and his orientation toward his culture.

Another study (Tate and Miller, 1971) examined differences between scores on the Rokeach Value Survey (Rokeach, 1968) and the four

groups derived by Allport and Ross (1967). The results substantiated logically predicted differences in value systems of persons with varying religious orientations. Allport's categories made for finer discriminations in value systems than were found earlier by Rokeach (1968, 1969a, 1969b).

Maddock and Kenny (1972) studied the difference on the Philosophy of Human Nature Scale (Wrightman, 1964) between intrinsic and extrinsic subjects as measured by the Allport's Religious Orientation Scale (1967). They found intrinsic subjects held a significantly more positive view of human nature. In another study, Maddock, Kenny and Middleton found no significant relationship between intrinsic and extrinsic orientations and preference for questionnaires composed of personality characteristics versus role activities for ministers (1973).

Studies of Prejudice Using Allport's Scale

Strickland and her associates have published two studies showing the relationships of several other variables to intrinsic and extrinsic religious orientation. In one study (Strickland & Schaffer, 1971), they found that church members identified as religiously intrinsic believed significantly more than those identified as extrinsic in internal control of reinforcement as measured by Rotter's Internal-External Scale (Rotter, 1966). However, authoritarianism as measured by the Fascism Scale (Adorno, et al., 1950) was not significantly related to religious orientation or to locus of control. Strickland and Weddell (1972) found that Unitarians were more extrinsic in religious

orientation, less dogmatic and less prejudiced than Baptists. Baptist Ss followed expected patterns with intrinsic Ss being significantly less prejudiced. In this study, dogmatism was measured using Rokeach's scale (1960) and prejudice by the Multifactor Racial Attitude Inventory (Woodmansee & Cook, 1967). This study by Strickland and Weddell (1972) suggests that the Allport scale may be limited in validity to the major, traditional religious denominations.

Digenan (1972) studied three groups of church members--Roman Catholic Religious, Roman Catholic lay persons and members of Protestant groups--using four attitude tests: Allport's Religious Orientation Scale, Rokeach's (1960) Dogmatism Scale, the Intolerant-Tolerant Scale (Prentice, 1957), and the Worldmindedness Scale (Sampson & Smith, 1957). She found differences among groups on all variables except religious orientation. She did not find that high scorers on Dogmatism were more extrinsic or that low scorers were more intrinsic. However, she did find a significantly positive correlation between extrinsic religious orientation and the Tolerant-Intolerant Scale. She did not find a positive significant relationship between the two measures of prejudice, nor between these and dogmatism. She states that her ambiguous results may be due to a lack of validity or reliability in Allport's scale and the two scales of prejudice.

In a multidimensional study similar to the present one, Hoge and Carroll (1973) explored the curvilinear relationship between church attendance and prejudice in light of four theories that each specify a different variable as the basis for prejudice. Allport (1968) puts

forth intrinsic and extrinsic religiosity as the cause. Authoritarianism has been proposed by others (Christie & Jahoda, 1954; Putney & Middleton, 1961; Martin & Nichols, 1962). Srole (1956) has put forth anomie as the explanation of prejudice, while anxiety about social status has been hypothesized as the cause by Frenkel-Brunswik (1954), Kaufman (1957) and others.

The variables studied included three measures of prejudice: Anti-Semitism Index of six items (Glock & Stark, 1966); the Racial Prejudice Scale, an 8-item measure especially constructed for this study; and the Mental Illness Index of eight items (Gilbert & Levinson (1956). Three scales of religious orientation were used: an especially constructed 6-item Intrinsic Religious Motivation Scale; and Feagin's Intrinsic and Extrinsic Subscales (1964). A shortened 15-item Rokeach Dogmatism Scale (Troldahl & Powell, 1965), the 5-item Srole Anomie Scale (1956) and the 10-item Status Concern Scale (Kaufman, 1957) were used to test the other three theories. Four indices by Glock and Stark (1966) were used to measure religious variables: a 4-item Orthodoxy Index; a 2-item Devotionalism Index; a revised 2-item Ethicalism Index; and a Constraint of Atheists Index. Several demographic variables were measured.

Hoge and Carroll (1973) found a significant curvilinear relationship between church attendance and prejudice. They found Orthodoxy to be mildly associated with prejudice, and Constraint of Atheists strongly related. Religious reading was mildly negatively related while Ethicalism was strongly negatively related. The Intrinsic Religious

Motivation Scale and the Feagin Intrinsic Subscale related minimally to prejudice, but the Feagin Extrinsic Subscale has substantial correlations. Hoge and Carroll found strong correlations with prejudice on dogmatism, anomie and status concern, the strongest being status concern. It was concluded by the authors that prejudice was determined more by these three personality variables than by religious variables with the exception of the effect of ethicalism and religious reading on anti-black prejudice in the South. Partial correlations showed that the Feagin Extrinsic Subscale's relationship to prejudice was explained almost entirely in terms of status concern and dogmatism.

Hunt and King (1971) give a further review of the literature concerning Allport's Intrinsic-Extrinsic theory, and a critique of the ways these concepts have been defined. They present an analysis of the components of the definitions of intrinsic and extrinsic as they are given by Allport in his various writings. Then they attempt to analyze the various scales in terms of what components are measured by each. Hoge's Validated Intrinsic Religious Motivation Scale (1972) which was used in the Hoge and Carroll study (1973) was devised in response to Hunt and King's criticisms of earlier scales.

A broader review of studies of religiosity and prejudice can be found in the introduction to the author's master's thesis (Meyer, 1972). Another review of studies of prejudice in religion can be found in Dittes (1969). A general review of studies of prejudice and ethnocentric attitudes can be found in Harding, Proshansky, Kutner, and Chein (1969).

Present Study

Because of the above noted criticisms of the various measures used to study intrinsic and extrinsic religiosity, the Committed-Nominal Religious Attitude Scale (C-NRAS) was constructed (Meyer, 1972). It was a much longer scale that was developed using factor analysis to improve its construct validity.

Validity.--It was based on Allport's thinking, but varied from the concepts of intrinsic and extrinsic somewhat. Allport's scale purports to measure religious orientation, which is taken by most to include motivation (see Hoge and Carroll, 1973). The C-NRAS was designed to sample verbalized attitudes and behaviors--which were felt to be active expressions of attitudes. Therefore, motivation was included in the C-NRAS scale, but only indirectly insofar as attitudes are motivating forces. These attitudes were broken down into two major categories which made intuitive sense: committed and nominal. The definition of committed religiosity found in the validation study for this scale was, "Those behaviors and shared attitudes seen in an individual whose life style indicates a total dedication to the religious beliefs which he holds in such a manner that these beliefs give him a purpose and goals in life and the personal strength to strive to achieve them" (Meyer, 1972, p. 29). Nominal religiosity was defined in that paper as, "Those behaviors and shared attitudes seen in an individual whose life style indicates that he has aligned himself with a religious system, be it an organization or a system of thought, in order to receive personal

or social gratification from a perceived power source outside of himself" (Meyer, 1972, p. 29).

The factor analysis provided a further breakdown of the two categories into six unique and logically understandable first order factors. Factor A, called "General Religiosity," was "a general positive orientation toward religion, both personal and institutional. It is primarily made up of items concerning personal faith, but it also contains a large number of items concerned with living a religious life, worship in and acceptance of the institutional church, and the security, peace and rewards found in religion" (Meyer, 1972, p. 45). This factor also had a certain "certainty and narrowness of beliefs" (Meyer, 1972, p. 45). This factor was considered a committed factor, but it also had some nominal items. It was felt that it represented the "average churchman" whose attachment to the church and his own beliefs was manifest in a mixture of attitudes. Table 2 gives a breakdown of the items within each scale using the numbers found in Appendix B.

The second factor, B, was "basically very closed-minded and oriented around a particular congregation and its teachings, worship and other activities. It also (had) items involving outward appearances in the church, habitual or traditional practices, ritualism and personal gain from religion" (Meyer, 1972, p. 46). Because this factor described a commitment, not to religion, but to a specific group in a manner that appeared to be nominal according to the above definition; it was considered a nominal scale and was called, "Closed-Minded, Ecclesiastical Nominalism" (Meyer, 1972, p. 46).

Factor C, "Situational Religion, True Nominalism," was "composed primarily of items which manifest a pragmatic approach to religion, and a lack of commitment to anything but self and personal gain. . . . These attributes are seen in relation to both institutional and personal religion. The label 'True Nominalism' refers to the fact that this factor portrays a person who is a member of a church and superficially identifies with religion; but who has no commitment to his faith" (Meyer, 1972, pp. 46, 47).

Factor D, called "Utilitarian Nominalism," emphasizes a practical "subjection of religion to serve personal, business, and social needs. It also contains items which focus upon the egotistical and prejudiced thinking of this style of religious activities (also) seen in the previous factor" (Meyer, 1972, p. 47). There was also an element of self glorification or self righteousness inherent in this factor. Items 101, 104, 110, and 111 illustrate several of the remarks above (see Appendix B).

The second committed factor, E, was named, "Anti-Clerical, Personal Commitment" (Meyer, 1972, p. 47). Three of the items on this factor, which showed strong loadings, are critical of church leadership. Most of the others show a strong personal commitment to one's own beliefs, including actions to back them up. These items seem to describe the many people who retain strong personal religious attitudes while withdrawing from activity in the organized church, because of disagreements over the way the business of the church is handled by church leaders.

Factor I, the third committed factor, was labelled, "True Commitment." "It is based in items concerning personal faith and devotion, humble evaluation of one's religious life and strong conviction in what one believes" (Meyer, 1972, p. 49). Some items included in this factor might be considered closed-minded or self-centered if taken alone, but in context of the entire factor, they appear to indicate the intensity of the personal investment by the person in his religion as a basis for his life.

Several other factors were found in the validation study, but had too few unique items to be interpreted.

Three second order factors were found in the validation study. The first appeared to be a general factor of nominalism. It loaded positively on nominal factors C, "Situational Religion, True Nominalism," and D "Utilitarian Nominalism." It loaded negatively on factor I, "True Commitment." The second appeared to be a factor of self-centered narrow-mindedness. It loaded positively on the nominal factors B, "Closed-Minded, Ecclesiastical Nominalism," and D, "Utilitarian Nominalism." The third second order factor appeared to be a general factor of commitment with a minor element of utilitarianism. It had positive loadings on factors: A, "General Religiosity," E, "Anti-Clerical Personal Commitment," I, "True Commitment," and D, "Utilitarian Nominalism" (Meyer, 1972, pp. 116-120). The results from the present study would indicate that Factor D was included because it is related to "indiscriminately, pro-religious" thinking.

In the present research, the C-NRAS was used with the Allport

Religious Orientation Scale (ROS, Allport & Ross, 1967) which was also used by Feagin (1964). An improved Religious Fundamentalism Scale (FS, Dynes, 1955) was also used which has more validity than the one used by Feagin. This scale was validated using ten ministers prior to the inclusion in this research. The validation yielded only three per cent of the responses not in the direction predicted. An Altered Ethnocentrism Scale (AES) of 10 items was used (Levinson, 1949, 1950) with the entire Dogmatism Scale (DS, Rokeach, 1956, 1960). Crowne and Marlowe's Social Desirability Scale (SDS, 1964) was included to test for response bias in this direction. While the problems of response bias in the two prejudice scales has not been eliminated it is believed that the above battery controlled for most of the criticisms leveled at the foregoing studies and also takes into account known sources of variance that were of importance when in combination with demographic variables called for in the directions (Appendix A).

The area of "mental health" studied by Rice (1971) was omitted since this would overburden a design already weighed down by multiple variables. Since all Ss were drawn from non-institutional populations, they were assumed to be "healthy." Rice's other two criticisms, concerning inclusion of the indiscriminately anti-religious group and concerning cultural orientation, were considered but purposely not answered in this study. Expanding the present scale to include items applicable to anti-religious individuals was not deemed expedient. And while Rice had a valid point that cultural orientations and religious orientations are interrelated, this new area of study would overburden the present

research. Some aspects of this question have been studied by Hoge and Carroll (1973).

Strickland and Weddell (1972) have shown that Allport's Religious Orientation Scale may not be useful in studying religious groups other than the major denominations. The C-NRAS was developed in a factor analytic study that included Unitarians, Mormans, Christian Scientists, and Jews. The present study, however, has Ss from seven major Christian denominations and Jews with only a few sect members who are lumped together as "Other."

Digenan (1972) criticized Allport's scale because she felt it lacked reliability and validity. The C-NRAS scale was felt to have improved construct validity due to the method of construction although its reliability is untested.

Because the study of Hoge and Carroll (1973) was not read by this author until the present research was already begun, its effect on the present findings will be discussed later.

Hypotheses

The following hypotheses were set forth, based on Allport's ideas and on earlier research findings. Other relationships were expected to be found from the analysis which could lead to further research in this area.

Hypothesis I. A strong relationship was expected between the three committed factors of the C-NRA Scale and the Intrinsic Subscale of Allport's RO Scale since the idea of committed religiosity was based

on Allport's construct of intrinsic religious orientation. A moderately strong, positive relationship was also expected between these relationships and the independent variables: numbers of services and numbers of functions attended per month. This relationship is basic to Allport's hypothesis that intrinsically oriented people would attend services more than those extrinsically oriented. This hypothesis is basic to this entire project, since its confirmation will indicate the applicability of the C-NRA Scale to Allport's theory.

Stated in operational terms, a canonical vector variable would be found which would have high positive loadings on C-NRAS factors A, E, and I, the ROS Intrinsic subscale, and a moderate positive loading among the independent variables on both the number of services and the number of functions attended per month.

Hypothesis II. Paralleling the above hypothesis, a strong relationship was expected between the three nominal factors on the C-NRAS and Allport's ROS Extrinsic Subscale since the construct of nominal religiosity was based partially on Allport's thinking about extrinsic religious orientation. From Allport's thinking, and from the earlier research on extrinsic religiosity, one expected a moderate relationship among these scales and scales measuring ethnocentrism, dogmatism and socially desirable methods of responding. It was also expected that the number of services attended in a month would be slightly positively related to all of the above dependent variables. This would be expected since nominally religious people were expected to be involved in services to a small degree. No prediction about number of functions was made

since some functions, such as socials, serve extrinsic needs as well as intrinsic.

Stated operationally, a second canonical vector variable would be found which would have high positive loadings on C-NRAS factors B, C, and D and on the ROS Extrinsic Subscale. It would have moderate loadings on the Altered Ethnocentrism Scale, Dogmatism Scale and Social Desirability Scale. It would have a low positive loading on the independent variable of number of services attended per month.

Hypothesis III. A third relationship would be found between ethnocentrism and dogmatism and C-NRAS factor B, "Closed-Minded, Ecclesiastical Nominalism." This factor is composed of many items which reflect a narrow orientation to a congregation as a social group to the exclusion of others. Other items reflect closed-minded, uncritical thinking concerning one's relationship to religion. Therefore, the items reflect the same kind of thinking as the ethnocentrism and dogmatism scales, only they are limited to religious rather than more general social content.

Stated in instrumental terms, a third canonical vector variable would load highly positive on C-NRAS factor B, the Altered Ethnocentrism Scale, and Dogmatism Scale.

Hypothesis IV. A fourth set of relationships would be expected among C-NRAS factor C, "Situational Religion, True Nominalism," social desirability, and to a lesser degree fundamentalism. Many items in this factor seemed to indicate a strong need for social approval, and some of

the items expressed attitudes common among many fundamental groups. It was the author's opinion that some fundamental groups have incorporated some socially desirable attitudes into their religious teaching.

To state this hypothesis operationally: A fourth canonical vector variable would be found which would have high positive loadings on C-NRAS factor C and on the Social Desirability Scale. It would load moderately positively on the Religious Fundamentalism Scale.

Hypothesis V. The multiple analysis of variance would indicate that the independent variables of age, religious position, number of services, number of functions, and groups had an overall effect on the scores of all of the dependent variables. These variables seemed the most important in terms of all of the dependent measures. All five independent measures should effect the dependent variables having to do with religious attitudes, while age and group should strongly effect all twelve dependent variables.

Stated in operational terms: Significant MANOVA main effects would be found for the independent variables of age, religious position, number of services, number of functions and group.

Hypothesis VI. The multiple analysis of variance would indicate that no overall effect on the scores of the dependent variables was due to the independent variables: location, education, social-status--as measured by either the McGuire-White scales or self estimates--religious affiliation, or political position. It was felt that there was nothing in the literature or in Allport's theories which would indicate that any

of these independent variables would affect all of the dependent variables enough to give a significant manova effect. Put in operational terms: the manova main effects would not be significant for location, education, social-status (McGuire-White), social-status (self-estimate), religious affiliation or political position.

Hypothesis VII. Significant analysis of variance effects would be found for the three committed C-NRAS factors--A, "General Religiosity;" E, "Anti-clerical, Personal Commitment;" and I, "True Commitment;"--and the ROS Intrinsic Subscale with the independent variables of numbers of services and numbers of functions attended per month, and group. The hypothesized relationship between committed factors and attendance comes directly from Allport's theory. The relationship of committed factors with group was hypothesized because of the diverse natures of the four population groups: clergy, seminarians, laymen, and lay college students. Stated operationally: Significant anova effects would be found for C-NRAS factors A, E, and I and for the ROS Intrinsic Subscale with the independent variables of numbers of services, numbers of functions, and groups.

Hypothesis VIII. It was also felt that analysis of variance effects for the independent variables of numbers of services attended per month and group would be significant for the three nominal factors of the C-NRAS--B, "Closed-Minded, Ecclesiastical Nominalism; C, Situational Religion, True Nominalism; and D, Utilitarian Nominalism--and the ROS Extrinsic Subscale. The reasoning behind this hypothesis was the same as in the previous hypothesis. The number of functions was

dropped in this case since many functions may serve extrinsic needs as well as intrinsic. Stated in instrumental terms, it was hypothesized that significant anova effects would be found for C-NRAS factors B, C, and D and the ROS Extrinsic Subscale on independent variables of number of services and group.

Hypothesis IX. It was expected that significant analysis of variance effects would be found for fundamentalism, ethnocentrism and dogmatism on the independent variable of age, education, and group. Previous research suggests that both age and education have significant effects on ethnocentrism and dogmatism. The variable group was confounded with both age and education, and so it was expected to be found significant also. Stated operationally, it was hypothesized that significant anova effects would be found for the Religious Fundamentalism Scale, the Altered Ethnocentrism Scale and the Dogmatism Scale on the independent variable of age, education, and group.

Hypothesis X. Means for the four groups on the dependent variables: C-NRAS factors A, E, and I and the ROS Intrinsic Subscales would ascend in value from laymen to ordained to college males to seminarians. It was believed that since all of the respondents were voluntary, they would all be positively oriented towards religion. It was also believed that younger ss would be more committed or intrinsic than older subjects and that those in a religious profession would be more committed or intrinsic than lay people. College students who profess religious beliefs were felt to be more committed than ordained because of strong

social pressures against religious affiliation in college but for the religious affiliation of ordained individuals. It was also felt that young college males and seminarians would be more idealistically committed and the two older groups more pragmatically oriented.

Hypothesis XI. Means for the four groups on the dependent variables: C-NRAS factors B, C, and D and the ROS Extrinsic Subscale would descend in value from laymen to ordained to college males to seminarians for the same reasons as given for Hypothesis X above.

Hypothesis XII. Means for the four groups on the dependent variable Altered Ethnocentrism, Dogmatism, and Social Desirability would descend in value from laymen to ordained to college males to seminarians. These predictions were based on the thinking that young students in college or seminary would be more open minded and less ethnocentric and socially conforming than older subjects. It was also believed that Ss in religious vocations would be more aware of these factors and therefore lower on these scales.

Interactions between the independent variables were predicted to be confounded in the cases of age, location, education, religious affiliation, religious position, and group due to the methods used in collecting the data.

METHOD

Battery of Scales

The Ss completed a three-part battery of scales (Appendix B) plus a page of information used as independent variables. The first part of the battery consisted of all 173 of the items from the six factors of the Committed-Nominal Religious Attitude Scales (C-NRAS, Meyer, 1972), the Religious Fundamentalism Scale, (RFS: from Dynes, 1955), the Altered Ethnocentrism Scale (AES: from Levinson, 1949; Adorno, et al., 1950) and the Dogmatism Scale (DS, Rokeach, 1956, 1960). Items from all of these scales were combined and assigned serial positions randomly. This procedure may have changed the context in which the items were viewed, and thus changed the meanings of the scales. However, it was felt that it was important to mask the scales to avoid response biases. All items were answered on a six step scale by circling a number from plus 3 to minus 3, with positive values indicating agreement and negative values disagreement. In scoring these items, values of 7 to 1 were assigned with plus 3 equaling 7 and minus 3 equaling 1. If the item was not answered or if both a positive and a negative value were circled then a value of 4 was given to the item, indicating neutrality.

The C-NRAS was discussed earlier (p. 10, f.), giving the six factors and definitions of committed and nominal as used in that scale.

The RFS consists of ten items taken from Dynes (1955) Church-Sect

Scale which is a Likert-type scale designed to measure type of religious association a person accepts. However, many of the items also vary across a liberal-fundamental continuum since these two dimensions are closely associated. Feagin (1964) used this scale in the same manner.

The Dogmatism Scale (DS), Form E, (Rokeach, 1956, 1960) is a 40 item scale used to measure general closed-mindedness on both the political left and right. It was included in its full length, but with no attempt to break it down into its content categories. While a great deal of dispute has been generated concerning construct validity of dogmatism as against authoritarianism, there is strong evidence to consider dogmatism a more general construct (Hanson, 1968; Kerlinger & Rokeach, 1966; Peabody, 1966; Rokeach, 1967; Plant, 1960). Reviews of dogmatism may be found in Brigham (1971). Erlich and Lee (1969), Kirscht and Dillehay (1967), and Vacchiano, et al. (1969).

An Altered Ethnocentrism Scale (AES) of ten items taken from the Ethnocentrism Scale (Levinson, 1949; Adorno, et al., 1950) was used to test for ethnocentric attitudes which may not be reflected in the Dogmatism Scale. The wording in some instances was altered slightly to make it more current and to include Spanish speaking minority members (Appendix B). It was believed that such alterations would improve the validity of the scale without adversely affecting the reliability. However, no tests of the validity or reliability of the AES was attempted. Items were picked according to discriminatory power, present relevance, and general acceptability of the wording. Reviews of the area of ethnocentrism are found in Christie and Jahoda (1954), Harding, et al. (1969),

Brigham (1971), Christie & Cook (1958).

The second part of the battery consisted of the twenty-one items of both the Intrinsic Scale and the Extrinsic Scale of Allport's Religious Orientation Scale (Feagin, 1964; Allport and Ross, 1967). This scale was devised by Allport and his students at Harvard. It grew out of an earlier scale (Wilson, 1960) which consisted of only extrinsic items. It was further utilized by Rice (1972). The twenty-one items were divided into nine intrinsic and twelve extrinsic. Items called for multiple choice type responses with four choices offered for each. They were scored by giving responses values from plus 5 to plus 1 with the value of plus 3 used for items not answered or for ones answered twice, as had been done in the Allport and Ross study (1967).

The Social Desirability Scale (Crowne and Marlowe, 1964) was included in its entire length of 33 items. This scale was intended to detect socially positive response bias in respondents (Appendix E). It was included because of Allport's hypothesis concerning indiscriminately pro-religious subjects and to determine if any of the C-NRAS scales were affected by positive or negative response biases. Reviews at different periods show differing degrees of acceptance of the theory of response bias (Block, 1965; Christie & Lindauer, 1963; Rorer, 1965; Wiggins, 1968).

A breakdown of the scales is given in Table 1 with the number of items and limits for each. A breakdown of items in each scale is given in Table 2.

TABLE 1

ANALYSIS OF VARIABLE GROUPINGS INTO INDEPENDENT AND DEPENDENT VARIABLES
AND SUBGROUPS SHOWING NUMBER OF LEVELS FOR EACH INDEPENDENT VARIABLE
FOR MANOVA AND CANCRR ANALYSES AND NUMBER OF ITEMS AND SCALE
LIMITS FOR DEPENDENT VARIABLES

Independent Variables			Dependent Variables		
Variable	Manova levels	Cancorr limits	Scale	No. items	Scale limits
Demographic Variables			Committed-Nominal Religious Attitude Scale		
Age	3	18-84	Committed factors		
Location	4	*	CNRAS A	27	27-189
Education	3	7-25	CNRAS E	15	15-105
Social status McGuire-White	2	1-7	CNRAS I	18	18-126
Social status Self-estimate	3	1-7	Nominal factors		
Religious Variables			CNRAS B	19	19-133
Religious Affiliation	2	*	CNRAS C	18	18-126
Religious Position	4	1-7	CNRAS D	16	16-112
Number of Services/Month	3	0-99	Allport's Religious Orientation Scale		
Number of Functions/Mo	3	0-99	Intrinsic	9	9-45
Group	4	*	Extrinsic	12	12-60
			Religious Fund	10	10-70
			Altered Ethnocentrism	10	10-70
			Social Desirability	33	0-33
			Dogmatism	40	40-280

*Variable eliminated from canonical correlation analysis.

TABLE 2

SCALES WITHIN EACH BATTERY

Items Within Each Scale Given by Battery Item Number*

C-NRAS factors**						Relig. Funda. **	Alter. Ethno. **	Dogmatism **		ROS**	
A	B	C	D	E	I					Intrin.	Extrin.
1	132	5	3	2	25	13R	7	10	92	1R	2
4	141	6R	51	9	36	18	17	16	98	3	5
8	143	14	52	11	43	32	19	24	100	4	6R
12	154	26	55	22	47	72	23	27	103	7R	9R
20	155	28	63	33	54	83	37	31	105	8R	10
21	161	30	73	46	61	96	70	34	107	14R	11
35	166	106	76	66	74	150R	84	38	112	16	12R
39		113	82	77	86	167	115	41	114	18	13
44		116	90	101	88	170R	123	42	117	20	15
58		118	95	104	93	172	171	45	120		17
65		127	102	110	99			50	124		19
71		131	108	111	119			53	140		21
75		135	125	137	128			59	142		
78		136	133	146	134			60	144		
89		157R	138	147	158			64	148		
109		159	145	151				68	149		
121		162	152					69	156		
126		163	153					81	164		
129		166						87	165		
130								91	168		

*Social Desirability Scale is not included. It consists of the last 33 true-false items.

**Included in the 173-item first section of the questionnaire.

***Both subscales of Allport's Religious Orientation Scale are included in the 21-item multiple-choice section.

Note--The letter R indicates reverse scoring for these items.

Subjects

Ss for this study were ordained religious leaders, seminary students, lay college students and laymen from local congregations. Systematic sampling was not possible, but the assumption of randomization was made with the understanding that biases were introduced by the data collection technique. Age, education, church attendance, religious status, social status, religious ideology and political position were varied by distribution of the questionnaires while sex, race, and location were controlled. Table 3 shows the number of subjects within each level of each category of the religious variables while Table 4 shows the breakdown for demographic variables.

A total of 850 questionnaires were distributed with return of 357. Of these, 20 were not used because they were completed by females or non-whites, or returned late, leaving a total N of 337.

Questionnaires were distributed or were offered to the leaders of several "sect" congregations. Those groups contacted were: Pentacostal, Assembly of God, Church of the Nazarene, and independent, fundamental Baptist congregations. Only 23 Ss from all of these groups responded, thereby limiting generalizability of the study to "main line" Protestant denominations and the Roman Catholic Church.

Although a few college students and even fewer laymen listed themselves as non-church members, most of these listed a denominational preference. Therefore, there were only a handful of Ss who could possibly be considered non-religious or anti-religious. Since there were only 5 Jewish Ss, the population was limited to Ss with some degree

TABLE 3

NUMBER OF SUBJECTS

Breakdown by Religious Variables Giving the Number of Ss for Each Category of Both the CANCORR and MANOVA Analyses

Vari- able level	CANCORR category criteria	No. of <u>Ss</u>	New level	MANOVA category criteria	No. of <u>Ss</u>
Religious affiliation					
0	Other	22	1	Catholic level	74
1	Catholic	74	2	Non-Catholic levels 0 & 2-9	263
2	Episcopal	27			
3	Methodist	51			
4	Lutheran	15			
5	Presbyterian	64			
6	Christian/Church of Christ	23			
7	Baptist	55			
8	Pentacostal	1			
9	Jewish	5			
Religious position					
1	Seminary prof., bishop	5	1	Levels 1 & 2	47
2	Minister, priest	42	2	Levels 3 & 4	94
3	Lay religious, seminarian	51	3	Levels 5 & 6	159
4	Elder, deacon	43	4	Level 7	37
5	SS teacher	18			
6	Lay member	141			
7	Non-church member	37			

TABLE 3 (continued)

Variable level	CANCORR category criteria	No. of <u>Ss</u>	New level	MANOVA category criteria	No. of <u>Ss</u>
Number of worship services attended per month					
Actual number of worship services attended per month			1	2 or less	92
	337		2	3 or 4	108
			3	5 or more	137
Number of church functions attended per month					
Actual number of church functions attended per month			1	2 or less	160
	337		2	3 to 6	82
			3	7 or more	95
Group					
1	Ordained	46	1	Same as original categories	
2	Seminarian	52	2		
3	Laymen	126	3		
4	College males	113	4		

TABLE 4

NUMBER OF SUBJECTS

Breakdown by Demographic Variables Giving the Number of Ss for Each Category of Both the CANCELL and MANOVA Analyses

Variable level	CANCORR category criteria	No. of <u>Ss</u>	New level	MANOVA category criteria	No. of <u>Ss</u>
Age					
Actual number of years varying from 18 to 84	337	1	18 to 29 yrs.	188	
		2	30 to 49 yrs.	106	
		3	50 yrs. and up	43	
Location					
1	New Orleans	36	Same as original categories		
2	Baton Rouge	87			
3	Austin	79			
4	Dallas	135			
Education					
Actual number of years varying from 7 to 25	337	1	0 to 12 yrs.	32	
		2	13 to 17 yrs.	220	
		3	18 yrs. and up	85	
Social Status (McGuire-White)					
1	Professional,exec.	73	1	Levels 1 & 2	207
2	Manager, teacher	134	2	Levels 3 to 7	130
3	Nurse, salesman	79			
4	Steno, clerk	36			
5	Foreman, craftsman				
6	Warehouseman,waitress	1			
7	Heavy labor, janitor	1			

TABLE 4 (continued)

Variable level	CANCORR category criteria	No. of <u>Ss</u>	New level	MANOVA category criteria	No. of <u>Ss</u>
Social status (self-estimate)					
1	Upper-upper	1	1	Levels 1 to 3	149
2	Lower-upper	21	2	Level 4	139
3	Upper-middle	127	3	Levels 5 to 7	49
4	Middle-middle	139			
5	Lower-middle	38			
6	Upper-lower	10			
7	Lower-lower	1			
Political Position					
1	Radical-liberal	8	1	Levels 1 to 3	137
2	Liberal	68	2	Level 4	87
3	Left-of-center	61	3	Levels 5 to 7	113
4	Middle-of-road	87			
5	Right-of-center	48			
6	Conservative	63			
7	Ultra-conservative	2			

of religious affiliation to Christian denominations. This limited results, in that they can not be generalized to the population of the United States as a whole, where non-religious and anti-religious people comprise an important minority.

All Ss were volunteers, and were recruited (except for the college students) from religious groups. Therefore, on the whole, they probably had more interest in religion, or were more committed than individuals who did not volunteer to respond. However, they were probably more motivated to seriously respond and to differentiate their responses carefully. A discussion of sampling problems in religious research of this kind can be found in Dittes (1969, pp. 610,f).

Procedure

The questionnaires were distributed to four basic groups of subjects--ordained religious, seminarians, laymen and college males through intermediaries. In the seminaries and universities, a faculty member was contacted, and in churches, a minister was approached about distributing questionnaires to their students or members. Individuals from eight schools (see Table 5) and from twenty churches in Baton Rouge, Louisiana and Dallas, Texas, (for a breakdown of the number of respondents from each faith, see Table 3) agreed to dispense the questionnaires. Each individual was given verbal instructions to attempt to get as broad a spectrum of respondents as possible from his group. An introductory letter (see Appendix A) was included with each bundle of questionnaires.

Specific directions for filling in the questionnaire were given

TABLE 5

SCHOOLS SAMPLED

Seminaries and Universities from which Ss Were Drawn

School	Location
New Orleans Baptist Theological Seminary	New Orleans, La.
Notre Dame Seminary (Catholic)	New Orleans, La.
Austin Presbyterian Theological Seminary	Austin, Texas
Episcopal Theological Seminary of the Southwest	Austin, Texas
Perkins School of Theology (Methodist)	Dallas, Texas
Universities	
Louisiana State University	Baton Rouge, La.
Southern Methodist University	Dallas, Texas
University of Texas	Austin, Texas

in the booklet, and an introductory letter was included on the front of each booklet (see Appendix B). Questionnaires were answered individually by each S. Therefore, intermediaries were required to distribute and collect the questionnaire booklets but not to supervise their administration.

Questionnaires were collected by intermediaries and returned to the author for scoring. About 75 questionnaires were hand scored by the author and several friends using scoring keys and overlays. The remainder were scored by key punching responses to items and using a computer program to sort and sum scale values. Reliability between the two methods was very good with less than a 1% difference between the two when selected questionnaires were scored twice.

Analysis

Two types of multivariate analyses of the data were run, multivariate analysis of variance (Manova) and canonical correlation (Cancorr). Other clarifying information from subroutines of the Manova program gave the simple statistics, univariate analysis of variance for each main affect, means for levels of each effect, correlation coefficients between the Manova canonical variables and dependent variables for each effect, and partial correlation coefficients between dependent variables.

Two separate canonical correlations were run. The first Cancorr analysis used C-NRAS factors as one group with the other six scales as the second group (see Table 1). The second Cancorr used all twelve dependent measures as the first group and eight of the independent variables as the second group (see Table 1). Plots of Ss for the first

three Cancorr analysis were also obtained which show visually the degree of association.

Since a canonical correlation finds the relationship between two hypothetical vector variables which are regression lines for a set of real variables, real variables used in finding the regression lines determine the outcome of analysis. Therefore, it was believed that two canonical correlations would provide a more complete picture of relationships between the variables, especially between the C-NRAS factors and other variables. This was felt important since this research was aimed at exploring areas for further research using C-NRAS as well as testing stated hypotheses.

The use of MANOVA was seen as complimentary to CANCERR analyses. While the canonical correlations clarified the relationships among the variables, multiple analyses of variance and their corresponding univariate analyses tested significance of effects of the variables in these relationships. This combined use of multivariate techniques was seen as a means of maximizing the usefulness of data by allowing specific relationships to be tested while exploring many others for heuristic purposes.

Data were analyzed on an IBM 360 Model 65 computer, using REGR (regression) and CANCERR (canonical correlation) procedures developed for the Statistical Analysis System (SAS) by Barr and Goodnight (1972). The options SIMPLE, CORR, MANOVA, MANCORR, MANMEANS and CANCERR were specified on the REGR procedure. The REGR CANCERR option gave the first Cancorr analysis mentioned above while the CANCERR procedure was used in the second Cancorr analysis.

RESULTS

Simple Statistics

Simple statistics for all the variables are given in Table 6. Using Student's t to test the difference between the expected mean or median score and sample mean, it can be seen that sampling biases have influenced variables considerably (see Table 7). All differences are significant at the .001 level except for Religious Fundamentalism which is significant at the .01 level, and Political Position which is not significantly different. In general the sample was biased toward higher social class laymen, who were more committed, intrinsic, and fundamental than expected. It was also less nominal, extrinsic, and prejudiced dogmatic and with a lower level of social desirability. The age variable is somewhat lower than expected and education somewhat higher than the national average of 12.2 in 1968 (Harth, 1971).

Indiscriminately Pro-religious

Following Allport and Ross (1967), an indiscriminately pro-religious group was isolated post hoc. This group was selected by finding subjects who were above the sample mean on all six C-NRAS variables. This method was used in lieu of Allport's and Ross's criteria since six scales were involved and not two, and applying a percentage cutoff would have been a complex procedure. Only 35 subjects out of an N of 337 were isolated by this method. This was a much smaller percentage than the 31% found by Allport and Ross and so is probably

TABLE 6
SIMPLE STATISTICS FOR ALL CONTINUOUS VARIABLES
Mean, Corrected Sums of Squares, Variance and Standard Deviation

Variable	Mean	Corrected S S	Variance	Standard Dev.
Independent Variables				
Age	32.492	65336.2314	194.4531	13.9446
Education	15.786	2020.6172	6.0137	2.4523
Social Status (McGuire-White)	2.374	406.8902	1.2110	1.1004
Social Status (self-estimate)	3.671	270.4392	0.8049	0.8972
Religious Position	4.774	976.8605	2.9073	1.7051
Number of services/month	8.033	56976.6409	169.5733	13.0220
Number of functions/month	5.240	27247.5312	81.0938	9.0052
Political Position	3.878	718.0119	2.1369	1.4618
Dependent Variables				
CNRAS A	128.507	274266.231	816.269	28.570
CNRAS B	52.350	52366.682	155.853	12.484
CNRAS C	70.484	37988.160	113.060	10.633
CNRAS D	68.006	95295.988	283.619	16.841
CNRAS E	69.570	72652.611	216.228	14.705
CNRAS I	91.104	165437.365	492.373	22.189
Religious fundamentalism	41.650	47306.682	140.794	11.866
Altered ethnocentrism	23.258	28394.540	84.508	9.193
Dogmatism	143.107	195766.154	582.637	24.138
ROS Extrinsic	28.745	18624.053	55.429	7.445
ROS Intrinsic	33.792	27103.460	80.665	8.981
Social Desirability	14.074	11763.145	35.009	5.917

TABLE 7

STUDENT'S t FOR DIFFERENCES IN SAMPLE AND EXPECTED MEANS

With Standard Deviation of Sample Mean and Probability the
Difference is due to Chance

Variable	Expec. Mean	Sample Mean	Standard Deviation	t	Prob- ability
Social status (McGuire-White)	4.0	2.374	1.100	26.97	.001
Social status (self-estimate)	4.0	3.671	.897	6.61	.001
Religious position	4.0	4.774	1.705	8.45	.001
Political position	4.0	3.878	1.462	1.52	N.S.*
CNRAS A	108	128.5	28.57	13.03	.001
CNRAS B	76	52.35	12.48	34.70	.001
CNRAS C	72	70.48	10.63	9.36	.001
CNRAS D	64	68.00	16.84	4.22	.001
CNRAS E	60	69.57	14.7	11.93	.001
CNRAS I	72	91.10	22.19	15.79	.001
Religious fundamentalism	40	41.65	11.87	2.57	.01
Altered ethnocentrism	40	23.26	9.19	33.42	.001
Dogmatism	160	143.1	24.14	12.85	.001
ROS Extrinsic	33	28.74	7.44	10.47	.001
ROS Intrinsic	27	33.79	8.98	13.77	.001
Social Desirability	16.5	14.07	5.92	7.53	.001

*N.S.: Non-significant.

only a portion of their group. However, the present criteria seemed to fit better the category "indiscriminately pro-religious." Sums of the scores and the means for all continuous variables of the "indiscriminately pro-religious" group are given in Table 8. Means do not show any large differences from overall means except for C-NRAS factor D which is higher at a .001 level of significance. All of the dependent variables--religious fundamentalism, ethnocentrism, dogmatism and social desirability are higher than the overall mean as would be expected from Allport and Ross's findings. The fact that they did not vary as much as would be predicted, may have been due to the fact that this group was selected differently than Allport and Ross's group. It was interesting to note that the ROS Extrinsic mean was almost the same as the overall mean. It was also noteworthy that the social desirability means were so close in view of Allport's thinking that the indiscriminately pro-religious group may be due to response bias. It is also interesting that this group was slightly older, more educated, higher status socially (by McGuire-White's table), more conservative religiously, more liberal politically and attended more services and functions than the overall group. However, none of these differences is large enough to be significant.

Manova

The multivariate analysis of variance showed significant overall effects due to age, social status as measured by the McGuire and White (1955) tables, number of services attended per month, number of functions attended per month, and political position (see Table 9).

TABLE 8
MEANS OF INDISCRIMINATELY PRO-RELIGIOUS Ss FOR ALL
CONTINUOUS VARIABLES

Variable	Sum	Mean
Age	1213	34.65
Education	581	16.60
Social Status (McGuire-White)	77	2.20
Social Status (Self-Estimate)	128	3.65
Religious Position	141	4.02
Number of Services/Month	399	11.40
Number of Functions/Month	240	6.85
Political Position	147	4.20
CNRAS A	5275	150.71
CNRAS B	2200	62.85
CNRAS C	2660	76.00
CNRAS D	2964	84.68**
CNRAS E	2880	82.28
CNRAS I	3711	106.02
Religious Fundamentalism	1680	48.00
Altered Ethnocentrism	986	28.17
Dogmatism	5667	161.91
ROS Extrinsic	1003	28.65
ROS Intrinsic	1389	39.68
Social Desirability	527	15.05

* N equals 35

** CNRAS D mean for indiscriminately pro-religious subjects was significantly different from the overall mean at the .001 level.

TABLE 9

MANOVA TESTS FOR THE HYPOTHESIS OF NO OVERALL
EFFECT DUE TO THE INDEPENDENT VARIABLES

Criteria Based on Hotelling-Lawley's Trace

Independent Variables	Value of F	Degrees of Freedom	Prob. of F	Characteristic Root	% of Var.
Age	1.5498	24 & 602	0.0461	0.101511 0.022059	82.15* 17.85**
Location	1.3098	36 & 902	0.1070	0.066742 0.062346 0.027737	42.56 39.76 17.69**
Education	0.7171	24 & 602	0.8368	0.038588 0.018589	67.49 32.51
Social Status McGuire White	1.9996	12 & 302	0.0238	0.079454	100.00*
Social Status Self-Estimate	1.0634	24 & 602	0.3816	0.077624 0.007165	91.55 8.45**
Religious Affiliation	1.6318	12 & 302	0.0816	0.064842	100.00
Religious Position	1.2838	36 & 902	0.1246	0.092761 0.044791 0.016161	60.35 29.14** 10.51**
Number of Services/Month	5.5441	24 & 602	0.0001	0.287534 0.161079	63.56* 36.44*
Number of Functions/Month	2.0465	24 & 602	0.0027	0.136506 0.026671	83.66* 16.34**
Political Position	3.9024	24 & 602	0.0001	0.257534 0.053621	82.77* 17.23**
Group	1.3663	36 & 902	0.0755	0.076899 0.052274 0.034416	47.01 31.95 21.04**

*Loadings for this meaningful canonical variable are in Table 10.

** No sufficient percent of variance represented to permit interpretation of this canonical variable. An arbitrary cut-off of 30% was adopted as the minimum meaningful level.

Number of services and political position had the highest level of significance at .0001 while number of functions is next highest at .0027. Location, religious affiliation, religious position and group all approach significance at the .05 level, but do not reach it. Table 9 also gives the characteristic roots and the percent of variance for which each canonical variable in that analysis accounted.

(Accounted) The characteristic roots are the latent roots of the characteristic equation for each canonical variable. These characteristic roots approach zero with each successive canonical variable isolated. They tend to decline rapidly in size for the first few canonical variables for each independent variable and then slowly decrease to an isomote. A rough criteria of the significance of a characteristic root is to use only those vector variables which show a rapid decrease in value from those before it. The percent of variance is an indicator of the amount of variance each canonical variable accounts for in the analysis. This can also be used as an indication of the meaningfulness of the vector variable. An arbitrary cut off of 30% of the variance was adopted, to be consistent across all independent variables, as the level at which a canonical variable is meaningful.

Table 10 gives correlation coefficients between each meaningful canonical variable due to a significant Manova effect and each of the dependent variables. Correlations were considered meaningful only if they were greater than $\pm .30$. Positive correlations with Age were found for two committed C-NRAS factors, E and I, for ROS Intrinsic and for the nominal C-NRAS factor D which was found to be the indiscriminately

TABLE 10
CORRELATION COEFFICIENTS BETWEEN EACH MEANINGFUL CANONICAL VARIABLE
DUE TO SIGNIFICANT MANOVA EFFECTS AND THE DEPENDENT VARIABLES*

Independent Variable	Canonical Variable	Committed-Nominal Religious Attitude Scale					
		A	B	C	D	E	I
Age	1	0.038	-0.038	-0.433	0.476	0.304	0.417
Social Status (McGuire-White)	1	0.305	0.770	-0.056	0.528	0.381	0.139
Number of Services/Month	1	0.694	0.204	-0.295	0.607	0.539	0.714
	2	-0.201	-0.086	-0.028	-0.308	-0.112	-0.068
Number of Functions/Month	1	0.449	-0.178	-0.299	0.436	0.481	0.590
Political Position	1	0.241	0.440	-0.002	0.386	0.263	0.083

TABLE 10 (continued)

Independent Variable	Canonical Variable	Other Dependent Variables					
		Relig. Fund.	Altered Ethno.	Dogma-tism	ROS Extrinsic	ROS Intrinsic	Social Desir.
Age	1	0.054	0.021	0.027	-0.362	0.335	0.259
Social Status (McGuire-White)	1	0.537	0.631	0.524	0.213	0.133	0.061
Number of Services/Month	1	0.827	0.052	0.182	-0.315	0.653	0.352
	2	0.316	0.059	0.174	0.311	-0.334	0.101
Number of Functions/Month	1	0.029	-0.126	-0.147	-0.320	0.516	-0.053
Political Position	1	0.623	0.768	0.538	0.151	0.138	0.0001

*Canonical variables accounting for less than 30.00 percent of the variance are excluded.

pro-religious factor. Negative correlations were found on Age for the nominal C-NRAS factor C and for ROS Extrinsic. This pattern of correlations suggests that as people grow older they become more religiously committed, a finding that seems to confirm the author's personal observations.

Social status as measured by the McGuire-White (1955) tables correlated strongly with C-NRAS factor B, a nominal subscale, and somewhat less strongly with ethnocentrism. Moderate correlations were found with C-NRAS factor D--indiscriminately pro-religious--, religious fundamentalism and dogmatism. Weak correlations were found with committed C-NRAS factors A and E. These correlations indicate that middle class (there were only two lower class Ss) people were more closed-minded religiously and generally, more ethnocentric and more fundamental religiously than upper class people. However, while these individuals are highly nominal, they also have some intrinsic attitudes of an anti-clerical and general nature.

On the first canonical variable, which accounted for 64% of the variance, number of services attended in an average month correlated very strongly with religious fundamentalism and somewhat less strongly with the committed C-NRAS factors I and A, and with the ROS Intrinsic subscale. The C-NRAS factors D, indiscriminately pro-religious, and E, anti-clerical commitment, both had moderate correlations with number of services, while social desirability was slightly correlated. ROS Extrinsic subscale was slightly negatively correlated and C-NRAS factor C is almost meaningfully negatively correlated. The second meaningful

canonical variable, which accounted for 36% of the variance, showed weak correlations with religious fundamentalism and the ROS Extrinsic subscale. It also had weak negative correlations with the ROS Intrinsic subscale and the nominal C-NRAS factor D, the indiscriminately pro-religious factor.

In looking at these two canonical variables, it was observed that three variables--C-NRAS factor D and the ROS Intrinsic and Extrinsic--reversed their signs from one canonical variable to the other. This was interpreted to indicate that there are two distinct groups of people who attended church frequently. Both groups were somewhat religiously fundamental in their thinking with a committed, intrinsic group being very much more so than a somewhat extrinsic group. The committed, intrinsic group also included elements of indiscriminately pro-religious attitudes and of social desirability. It was interesting to note that more fundamental intrinsic and indiscriminately pro-religious individuals attended church more often while religiously liberal individuals with the same attitudes attended somewhat less often. The opposite was true of the extrinsic groups.

The number of functions attended in an average month correlated moderately strongly with C-NRAS factor I, "True Commitment," moderately with the ROS Intrinsic, committed C-NRAS factors A and E, and C-NRAS nominal factor D, indiscriminately pro-religious attitudes. This variable was negatively correlated with ROS Extrinsic and almost meaningfully so with C-NRAS factor C. Number of functions appeared to be highest with subjects who are committed and intrinsic with some

indiscriminately pro-religious element but without the religious fundamentalism which was so prominent in number of services. It was also noted that ROS Extrinsic was negatively correlated, and C-NRAS factor C was almost meaningfully so, with both number of functions and the first canonical variable of number of services.

Political position correlated very strongly with ethnocentrism, strongly with religious fundamentalism, moderately with dogmatism and slightly with C-NRAS nominal factors B and D. The more politically conservative a S's attitudes, the more probable that he was socially prejudiced and narrow-minded; and religiously conservative, narrow-mindedly nominal and somewhat indiscriminately pro-religious.

Anova

Analysis of variance (anova) results for all variables were obtained, irrespective of the significance of the manova results. However, these results closely parallel previously cited manova results as can be seen by comparing Table 11 with Table 10. Effects, significant at the .05 level, for the variable Age were found on C-NRAS factors C, D, and I. All of these were correlated higher than $\pm .40$ with the manova canonical variable. The means on C-NRAS factor C decreased uniformly from young to middle aged to older Ss. However, on C-NRAS factors D and I, younger and middle aged subjects were similar with a sharp increase for older subjects, showing this group to be more committed and more indiscriminately pro-religious (see Appendix C).

Location had only one anova effect which was significant at the

TABLE 11

UNIVARIATE ANALYSIS OF VARIANCE RESULTS FOR ALL VARIABLES INCLUDED IN THE MANOVA ANALYSIS
 Degrees of Freedom, Mean Squares, and Levels of Significance

Independent Variables	Dependent Variables						
	DF	CNRAS A	CNRAS B	CNRAS C	CNRAS D	CNRAS E	CNRAS I
Regression	23	6220.83	588.54	419.00	2225.14	1412.47	3433.20
Error	313	419.13	124.06	90.58	140.95	128.33	276.27
Age	2	975.67	2.94	271.83*	533.72*	190.59	837.03*
Location	3	488.89	136.19	12.52	200.57	131.85	20.14
Education	2	455.23	137.76	3.64	30.76	50.22	135.53
Social Status McGuire-White	1	970.32	1828.94***	7.10	975.93***	464.34	133.33
Social Status Self Estimate	2	153.59	475.50*	38.20	558.29*	15.21	54.14
Religious Affiliation	1	669.81	461.52	327.43	204.73	83.04	260.77
Religious Position	3	69.80	42.07	107.63	141.46	7.24	142.15
Number of Services/Month	2	9311.08***	249.89	349.30*	2617.01***	1680.27***	6227.84***
Number of Functions/Month	2	1806.88*	116.52	309.31*	578.10*	637.39**	2056.03**
Political Pos.	2	1621.39*	1005.94***	31.68	856.69**	434.29*	397.95
Group	3	697.29	130.30	156.66	174.32	84.44	269.27

TABLE 11 (continued)

Independent Variables	Dependent Variables						
	DF	Religious Fundamen.	Altered Ethno.	Dogma-tism	ROS Extrinsic	ROS Intrinsic	Social Desir.
Regression	23	889.99	380.22	1843.86	178.97	637.47	56.59
Error	313	85.74	62.78	489.96	46.35	39.75	33.42
Age	2	8.63	13.46	392.22	132.08	70.88	35.56
Location	3	39.09	146.77	511.57	6.73	2.22	88.07*
Education	2	49.35	51.98	826.57	130.33	2.61	6.44
Social Status McGuire-White	1	615.01**	621.17**	3347.46**	52.09	17.51	3.12
Social Status Self-Estimate	2	1.39	22.45	16.89	76.34	17.85	4.78
Relig.Affiliation	1	305.18	91.47	4.84	183.55**	116.14	74.49
Relig.Position	3	45.64	114.08	542.42	13.77	12.19	19.00
No. Serv./Month	2	2795.53***	13.02	1087.79	315.71**	857.69***	191.64**
No. Funct./Month	2	443.90	22.76	275.86	107.89	249.15**	8.49
Political Position	2	1356.92***	1520.60***	5865.99***	45.47	40.04	5.11
Group	3	29.06	60.76	34.02	60.12	63.23	39.69

* < .05

** < .01

*** < .001

.05 level, social desirability. Comparison of the means showed New Orleans Ss to score strongly higher and Dallas Ss to score slightly lower on social desirability than the others. This finding was uninterpretable and possibly was a chance result.

No significant anova effects were found for education.

Effects beyond the .001 level of significance were found for social status as measured by the McGuire-White tables (1955) on C-NRAS factors B and D. Effects beyond the .01 level for this variable were found on religious fundamentalism, ethnocentrism and dogmatism. All of these variables had correlations greater than .50 with the manova canonical variable. On all of these variables, a comparison of means shows the higher status respondents to be lower than the middle status Ss (only two lower status Ss were sampled), indicating that middle class Ss were more indiscriminately pro-religious, closed minded, nominally religious, fundamental, ethnocentric and dogmatic.

Only one significant effect at the .05 level was found for self estimates of social status, C-NRAS factor B means decreased from upper and middle status groups to the lower status group. This was the opposite trend from the one found above using the McGuire-White tables. This finding is probably explained in light of the author's observation that many college students tended to place themselves in status levels lower than the McGuire-White tables.

Religious affiliation had one effect, ROS Extrinsic, significant at the .01 level. Roman Catholics were more extrinsic than all other faiths combined.

No significant anova effects were found for differences in religious position.

The pattern of significant anova effects for the number of services attended per month paralleled findings of the manova first canonical variable as to relative magnitudes of variables. All variables with a correlation of $\pm .50$ or greater with the manova first canonical variable had significant effects at the .001 level or greater. These were fundamentalism, C-NRAS factors A, D, E, and I, and ROS Intrinsic. Two effects, social desirability and ROS Extrinsic, were significant at the .01 level and one, C-NRAS factor C, was significant at the .05 level. Means increased with the number of services for all variables except ROS Extrinsic and C-NRAS factor C which decreased and ethnocentrism which was not affected. These results indicated that more fundamental, committed and intrinsic Ss attended church most often. These Ss were also somewhat indiscriminately pro-religious and attempted to describe themselves in socially desirable ways. The second manova canonical variable was not clarified by the univariate analysis.

Number of functions attended in an average month showed the same pattern of significant variables being roughly ranked in the order of their correlation with the manova canonical as did number of services. The larger the correlation, the higher the level of significance. C-NRAS factors I and E and ROS Intrinsic were significant at the .01 level. C-NRAS factors A, D and C were significant at the .05 level. Only ROS Extrinsic, which had a correlation of $-.32$, was not found significant in the univariate analysis. The means increase on number of

functions with committed, intrinsic and indiscriminately pro-religious attitudes of the Ss and decrease with nominal and extrinsic attitudes. Means for dogmatism and ethnocentrism showed minor decreases while fundamentalism and social desirability did not change.

It was noted that on both attendance of services and functions-- the original variable Allport was concerned with--C-NRAS factor C varies in the same way as ROS Extrinsic, indicating they were more closely related here than the other two nominal C-NRAS subscales B and D. However, other findings indicated that this relationship was limited and does not hold up overall.

Political position had significant effects at a .001 level or greater with ethnocentrism, fundamentalism, dogmatism, and C-NRAS factor B. C-NRAS factor D was significant at the .01 level and C-NRAS factors A and E were significant at the .05 level. Neither A nor E was correlated .30 or greater with the manova canonical variable. The pattern of relative magnitudes still held, but with much lower correlations for each level of significance. These findings indicated that politically conservative individuals were more ethnocentric, fundamental, dogmatic and nominal. They also had indiscriminately pro-religious attitudes and a small degree of commitment.

There were no significant effects for the variable group.

Canonical Correlation of 20 Variables

Table 12 gives means of group 1, dependent variables, and group 2, independent variables (that could be assumed to be interval or ratio scales); canonical correlation between these groups; chi-square

TABLE 12

CANONICAL CORRELATION ANALYSIS FOR 8 INDEPENDENT AND 12
DEPENDENT VARIABLES GIVING ALL CANONICAL VARIABLES

Means of Each Group Chi-square, Degrees of Freedom, and Probability
that Chi-Square is due to Chance

Canon. var.	Mean of gp 1 canon. variable	Mean of gp 2 canon. variable	Canon. corr.	Chi- square	DF	Prob. chi-sq.
1	0.05201	0.04662	0.74832	544.006	96	0.0001
2	0.09711	0.05877	0.62847	275.973	77	0.0001
3	0.38367	0.03479	0.35823	111.913	60	0.0001
4	-0.20808	0.04616	0.24584	67.071	45	0.0181
5	0.16684	-0.55151	0.22701	46.716	32	0.0449
6	0.18071	-0.46075	0.21788	29.442	21	0.1035
7	0.28351	-0.36968	0.17477	13.563	12	0.3292
8	0.08890	0.13421	0.10229	3.435	5	0.6358

statistic with its degrees of freedom; and the probability that the chi-square was a random finding for each canonical variable. Only five canonical variables had a chi-square which was statistically significant at the .05 level, and only three had correlations greater than .30 between the groups the arbitrary level used to indicate meaningful correlations. Correlation coefficients between each meaningful canonical variable and the variables of each group are given in Table 13.

The first pair of canonical variates appeared to relate to a general factor with only three dependent and two independent loadings of less than .30 (Table 13). The canonical correlation between the two groups was .75, indicating a strong commonality (Table 12). The dependent measure variate appeared to be composed of indiscriminately pro-religious thinking as reflected in the very high loading on C-NRAS factor D and the fact that only C-NRAS factor C and ROS Extrinsic were negatively loaded. It also had a strong element of intrinsic and committed religiosity. The group 2 variate represented Ss who were older, more conservative politically, more fundamental and more educated. They probably filled some leadership position religiously and attended more functions and services than other Ss. Many ministers and older lay leaders in congregations would be found among Ss who endorsed these indiscriminately pro-religious, intrinsic and broadly committed attitudes. Figure 1 presents the plot of group 1 canonical variable 1 against group 2 canonical variable 1.

The second canonical variable was found to load on group 1

TABLE 13
CORRELATION COEFFICIENTS BETWEEN EACH CANONICAL VARIABLE AND THE
VARIABLES OF THE GROUPS FOR THE 20 VARIABLE ANALYSIS

Canon. Var.	Variables											
	Group 1											
	CNRAS A	CNRAS B	CNRAS C	CNRAS D	CNRAS E	CNRAS I	Relig. Funda.	Alter. Ethno.	Dogma- tism	ROS Extrin.	ROS Intrin.	Social Desir.
1	0.809	0.302	-0.496	0.864	0.781	0.732	0.496	0.278	0.286	-0.361	0.822	0.096
2	0.081	0.585	-0.120	0.162	0.076	0.049	0.615	0.789	0.593	0.265	-0.034	0.180
3	0.488	-0.174	0.115	0.084	0.480	0.495	0.394	-0.142	0.092	-0.121	0.293	0.006
4	-0.0414	-0.357	-0.203	0.005	-0.084	0.141	0.108	0.034	-0.486	-0.127	-0.035	0.121
5	0.147	0.086	-0.176	0.235	0.075	0.241	0.122	-0.245	0.127	0.552	0.163	0.383

TABLE 13 (continued)

Group 2								
Canon. Var.	Age	Educa- tion	Social Status (M-W)	Social Status (S-E)	Relig. Position	Number Serv./ Month	Number Funct/ Month	Polit. Posit.
1	0.705	0.432	-0.073	-0.077	-0.724	0.396	0.475	0.461
2	-0.006	-0.656	0.537	0.019	0.498	-0.222	-0.363	0.748
3	-0.445	0.042	0.106	0.634	-0.280	0.651	0.322	-0.033
4	-0.055	0.028	-0.461	-0.105	0.256	0.059	0.512	0.296
5	0.285	-0.485	-0.036	-0.050	-0.009	0.278	-0.060	-0.195

* Meaningfully correlated means are those correlated $\pm .30$ or more

dependent measures of ethnocentrism, dogmatism, fundamentalism, and narrow-minded, social nominalism. Group 2 loadings were on political positions, education, social status (as measured using McGuire-White tables) and religious position (Table 13). These canonical variates correlated .63 and described a fairly clear-cut type of respondent. It portrayed Ss who were quite prejudiced, narrow-minded, both socially and religiously conservative. These were individuals who were of lower education and social status group and had not achieved many positions of leadership in the church. This canonical variable seems to have been due to the group Allport was searching for, highly prejudiced, socially oriented church members. Figure 2 gives the plot of group 1 canonical variable 2 versus group 2 canonical variable 2.

Correlations of the dependent variables on the third canonical variate were meaningful for fundamentalism, all three committed factors on C-NRAS and almost meaningful for ROS Intrinsic. On independent variables, age, self-estimated social status, and number of services and functions were meaningful. Ss who responded in this manner appeared to have been young, generally committed individuals who attended many more services and a few more functions than other Ss. They were somewhat fundamental and intrinsic and held some religious leadership positions among them. This pair of canonical variates appeared to describe seminary students and devoutly religious college students. Figure 3 gives the plot of group 1 canonical variable 3 versus group 2 canonical variable 3.

These canonical factors were fairly clear and distinct within

themselves as can be seen visually in Figures 1, 2, and 3. They were also quite orthogonal to each other as can be seen when groups are plotted to show all possible comparisons between these three pairs of canonical correlations (Figures 4, 5, 6, 7, 8 and 9).

The fourth pair of canonical variates had few meaningful loadings with either group and the correlation between them was .25. It had loadings that described Ss as being open-minded socially and religiously. These Ss denied nominal social reasons for being in the church. The group 2 variate described upper class Ss who attended more functions but not more services than others. They tended to be somewhat conservative politically and did not hold a leadership position religiously. No firm picture was obtained from this data for interpretation.

The fifth pair of canonical variates had only three loadings above .30 between them and correlated .23 with each other. Positive meaningful correlations were found on the group 1 variate with ROS Extrinsic and the Social Desirability Scale. On the group 2 variate a negative correlation was found with education. Nearly meaningful loadings were found on age and number of services attended. This gave a weak picture of older, poorly educated, Ss who attended services regularly. They had an extrinsic religious orientation and tried to respond in a way that would please others. This seemed to be a factor that would fit into Allport's idea of extrinsic religious orientation. However, these Ss attended services somewhat more than others and that would put them slightly over the mean of eight per month.

Relationships Among Dependent Variables

Two analyses were obtained from the MANOVA program on only the dependent variables. Partial correlation coefficients from the adjusted Y'Y matrix were given (Table 14) and a canonical correlation between the six C-NRAS factors as group 1 and the other six dependent measures as group 2 was obtained (Table 15). Table 16 gives the simple statistics for this canonical correlation.

The first canonical variates, which were correlated between the groups at .83 had very high loadings on C-NRAS factors A, E, and I, Religious Fundamentalism, and ROS Intrinsic. They had a high loading on C-NRAS factor D and a slight loading on dogmatism. The partial correlations paralleled these loadings as expected. These results indicated that a strong factor of committed attitudes and intrinsic orientation with fundamental beliefs was obtained. This factor also has an element of indiscriminately pro-religious thinking and a slight dogmatic tendency.

The second pair of canonical variates was correlated at .67. Very high loadings were obtained on C-NRAS factor B, ethnocentrism and dogmatism. Moderate loadings were found on C-NRAS factor C and ROS Extrinsic. A slight loading on C-NRAS factor D was also obtained. These relationships were supported, although not as strongly as with canonical variable 1, by the partial correlations. These results indicated that a second strong factor was obtained. Loadings show that the ROS Extrinsic Subscale was strongly related to ethnocentrism and dogmatism. It can also be seen that of all the nominal subscales of the

TABLE 14

PARTIAL CORRELATION COEFFICIENTS OF THE 12 DEPENDENT VARIABLES

From Y'Y Matrix Adjusted for All Independent Variables

	CNRAS B	CNRAS C	CNRAS D	CNRAS E	CNRAS I	Relig. Funda.	Altered Ethno.	Dogma- tism	ROS Extrin.	ROS Intrin.	Social Desir.
CNRAS A	0.206	-0.236	0.588	0.807	0.826	0.596	0.038	0.208	-0.159	0.725	0.266
CNRAS B		0.261	0.479	0.202	0.178	0.259	0.569	0.474	0.292	0.164	0.017
CNRAS C			0.151	-0.047	-0.162	-0.209	0.200	0.284	0.288	-0.244	-0.161
CNRAS D				0.661	0.635	0.546	0.236	0.447	0.155	0.429	0.121
CNRAS E					0.803	0.664	0.099	0.381	-0.155	0.640	0.244
CNRAS I						0.616	0.050	0.251	-0.108	0.704	0.146
Relig. Funda.							0.246	0.371	-0.185	0.534	0.173
Altered Ethno.								0.487	0.197	0.072	-0.005
Dogma- tism									0.239	0.168	0.097
ROS Extrin.										-0.243	-0.006
ROS Intrin.											0.155

TABLE 15

CANONICAL CORRELATION ANALYSIS OF 12 DEPENDENT VARIABLES
Correlation Coefficients Between Canonical Variables and Dependent Variables

Can. Var.	Variables					
	Group 1					
	CNRAS A	CNRAS B	CNRAS C	CNRAS D	CNRAS E	CNRAS I
1	0.923	0.296	-0.283	0.965	0.911	0.914
2	-0.145	0.873	0.588	0.431	0.058	-0.048
3	-0.195	-0.332	0.168	0.225	0.327	-0.063
4	-0.022	0.166	-0.367	-0.383	0.071	-0.316
5	0.120	-0.100	0.605	-0.247	0.231	0.109
6	-0.269	-0.042	-0.213	-0.280	-0.042	0.214

	Group 2					
	Relig. Funda.	Altered Ethno.	Dogma- tism	ROS Extrin.	ROS Intrin.	Social Desir.
1	0.844	0.138	0.373	-0.168	0.884	0.278
2	0.124	0.811	0.745	0.568	-0.147	-0.151
3	0.303	-0.323	0.381	-0.184	-0.336	-0.058
4	0.156	0.434	0.038	-0.624	-0.056	0.396
5	-0.358	-0.096	0.349	-0.288	0.271	-0.149
6	0.167	0.148	-0.194	-0.378	0.082	-0.847

TABLE 16

CANONICAL CORRELATION ANALYSIS OF 12 DEPENDENT VARIABLES

Means of Both Groups, Chi-Square, Degrees of Freedom, and Probability Chi-Square is Due to Chance

Can. Var.	Mean gp. 1 Canon. Var.	Mean gp. 2 Canon. Var.	Canonical Correlation	Chi Square	Degrees Freedom	Probability Chi-Square
1	0.28676	0.36243	0.836	650.682	36	0.0001
2	0.25401	0.25757	0.668	283.559	25	0.0001
3	-0.06353	-0.02648	0.371	102.044	16	0.0001
4	-0.17738	-0.16077	0.287	56.440	9	0.0001
5	0.41462	0.06029	0.251	29.967	4	0.0001
6	-0.21291	-0.17335	0.178	9.887	1	0.0018

C-NRAS; factor B was most closely associated with ethnocentrism and dogmatism. C-NRAS factor D, indiscriminately pro-religiousness, loaded slightly higher on this nominal factor than on the committed one.

The third pair of canonical variates correlated at .37 and had only weak loadings on both groups. They had positive correlations with C-NRAS factor E, dogmatism and religious fundamentalism. Negative correlations were found with C-NRAS factor B, ethnocentrism and ROS Extrinsic. These relationships are not evident in the table of partial correlation coefficients. Results indicated that some committed individuals who were antagonistic towards church leadership rejected narrow-minded social attitudes toward religion. They were somewhat more dogmatic and fundamental than other Ss but less ethnocentric and extrinsic.

The last three pairs of canonical variates were correlated at less than .30 and had loadings which could not be clearly understood. Therefore no attempt was made to interpret them.

DISCUSSION

Hypotheses

The results generally confirmed Hypothesis I. The first pair of canonical variates from the overall (20 variable) canonical correlation analysis included all predicted levels of loadings (Table 13). However, there were other important loadings which were not predicted. C-NRAS factor D was originally called "Utilitarian Nominalism" and was thought to emphasize subjection of religion to serve personal, business and social needs. This would have been difficult to reconcile with the rest of the first canonical variable. However, this factor was found in the present research to consist largely of "indiscriminately pro-religious" attitudes. The heavy loading of factor D on the first canonical variable was entirely logical in the light of this new finding. The loading of age on the canonical variate of group 2 was logical upon post hoc reflection in the light of Erik Erikson's thinking concerning the eighth age of man, "Maturity," in which the individual develops "some world order and spiritual sense. . . ." (Erikson, 1963, p. 268).

The loading of the Religious Fundamentalism Scale on the first canonical variate was more difficult to understand, especially the very large loading that was found in the canonical correlation analysis of dependent variables (Table 15). It was probably due to biases in the sample, since in the overall analysis both education and political position were moderately loaded without any logical reason (Table 13).

The canonical correlation of the dependent variables also largely confirmed the first hypothesis having only an unpredicted high loading on religious fundamentalism.

Hypothesis II was not confirmed in terms of the overall canonical correlation analysis (Table 13). However, it was largely confirmed by the canonical correlation of the dependent variables only (Table 15). The Altered Ethnocentrism Scale was found to have a high loading instead of a moderate one as predicted, and the Social Desirability Scale had a very slight negative loading versus a moderate positive one.

Hypothesis III was generally confirmed in the second pair of canonical variates of overall canonical correlation (Table 13). High loadings were found for the three variables as hypothesized. A fourth, unpredicted, high correlation was also found on religious fundamentalism among group 1 variables. On the group 2 variate, education and number of functions had meaningful unpredicted negative correlations; while the McGuire-White index of social status, religious position and political position had significant positive correlations which were not predicted. When these are combined to picture a fundamental, politically conservative, lower middle class individual who does not have any advanced education and who does not attend many church functions but regularly goes to worship services, a stereotype of the "redneck" begins to form. This stereotype is highly consistent with the predicted high degrees of dogmatism, ethnocentrism, and narrow-minded, socially oriented nominalism.

Hypothesis IV was not confirmed in the canonical correlation

analyses. The partial correlation coefficients indicate that C-NRAS factor C was weakly negatively correlated to both the Social Desirability and the Religious Fundamentalism Scale.

Hypothesis V was confirmed for three of the five variables predicted to be significant. Age was significant at the .05 level, number of services at the .0001 level, and number of functions at the .005 level. Religious position and group were not significant. The latter two were closely related; group being based partially on religious position. The fact that these two variables were not significant seemed very interesting in light of the fact that they were the most logical groups to show differences.

Hypothesis VI was confirmed for all but two variables. Social status, as measured by the McGuire-White tables, was significant at the .05 level. It is very interesting that social status was significant while education was not since the two should logically be strongly correlated. Looking at the Anova results (Table 11) it was evident that most variance was accounted for in five variables, three religious and two social. It is logical that religious conservatism, i.e., fundamentalism, should relate strongly with political conservatism. The fact that C-NRAS factor B correlates so highly with ethnocentrism explains its being significantly related to political position. C-NRAS factor D, indiscriminately pro-religious attitudes, logically fits into a pattern of political thinking that also includes "Mother," "the Flag" (sic), "apple pie," and the status quo. Again, a stereotype was formed that seemed to have some validity and could be used to understand otherwise illogical results.

Hypothesis VII was confirmed for all three factors being significant on numbers of services and functions but not for group (Table 11).

Hypothesis VIII was generally not confirmed. C-NRAS factors C and D were significant for numbers of services only (Table 11).

Hypothesis IX was not confirmed (Appendix C).

Hypothesis X was not confirmed (Appendix C).

Hypothesis XI was not confirmed (Appendix C).

Hypothesis XII was not confirmed (Appendix C).

The last four hypotheses, and to a degree, the last six hypotheses all involved some speculative theories that the author "arm-chaired" concerning relationships between the four basic groups of subjects. It was thought that seminary students, and to a lesser degree, religious college students would be more idealistically committed and more aware of philosophical contradictions in nominal attitudes. It was felt that ordained ministers would have become somewhat pragmatic and utilitarian in the real world setting. The layman was seen as the most nominal and least committed in the long run. Results showed this thinking to be, sadly, in error.

Hunt and King's Questions

In their review article, Hunt and King (1971) asked four questions concerning Allport's concept of intrinsic and extrinsic orientations to religion. They answered these in terms of earlier research findings. The present research yielded results which generally agreed with these earlier findings, but in some important aspects differed with them.

This study generally agreed with King and Hunt's (1971) findings that intrinsic and extrinsic religious orientations were two separate dimensions but indicated that these two dimensions were slightly negatively correlated. The partial correlation coefficient between them was-- .24 and seven of eleven pairs of canonical variates had opposite signs on canonical correlation analyses.

Hunt and King proposed eleven component dimensions that had been gleaned from Allport's writings (1971, pp. 342,343). The present research was based on the six factors of the Committed--Nominal Religious Attitude Scales (Meyer, 1972). The three committed factors had high partial correlations among themselves and with extrinsic religiosity on the present research. However, their patterns of correlations with other variables, and their loadings on the canonical variates differed. The analysis of variance indicated that some independent variables varied in a significant manner with some factors but not with others. Therefore, it is clear that these factors were unique although they were more closely related in the present research than they were in the original factor analysis (Meyer, 1972). This change was probably due to the changed sequence of the items in the battery. It may also have been due in part to the difference in populations between the studies.

In the present study it was found that C-NRAS factors A, "General Religiosity," and I, "True Commitment," related more than factor E, "Anti-clerical Personal Commitment," to intrinsic orientation, age, and number of services. Factors A and I related less than E to

indiscriminately pro-religious attitudes, fundamentalism and dogmatism. Factors A and E related more than I to socially desirable responses and social status, but less than I to the number of functions attended. While the factors related differently to various other variables, they were also found to be part of a general factor which included the three committed C-NRAS factors, ROS Intrinsic Subscale, and Religious Fundamentalism (see Tables 13 and 14).

Among the three nominal C-NRAS factors, factors B, "Closed-Minded, Ecclesiastical Nominalism," and D, "Utilitarian Nominalism,"-- which was also related to "indiscriminately pro-religious" attitudes-- were moderately correlated. But no meaningful correlations were found between either of these factors and factor C, "Situational Religion, True Nominalism," or with the ROS Extrinsic Subscale. C-NRAS factor B was strongly related to ethnocentrism and dogmatism as was expected from the item content. In the canonical correlation analysis, factor B loaded strongly on a variety that included meaningful positive loadings on several variables that indicate it had relationships with one's position in life and one's philosophy, which may be stronger than the religious element. C-NRAS factor C was not strongly related to any other variables, while C-NRAS factor D was strongly correlated with all of the other factors except C. This seems to be due to its relationship with indiscriminately pro-religious attitudes. Factor D was also related to fundamentalism and somewhat so to dogmatism and the ROS Extrinsic Subscale. Generally, then, the present research indicates that there were various dimensions involved in this area of study as Hunt and King

hypothesized, but not those they proposed exactly (1971).

Hunt and King (1971) also questioned the kinds of phenomena referred to by the constructs intrinsic and extrinsic. The present research was developed on the basic assumption that what was being investigated were attitude dimensions, or different homogenous clusters of cognitive constructs that an individual reacts toward or away from. As such, they were considered orientations to religion and indirectly as partial motivators of verbal and possibly motor behaviors. Variables were not seen as beliefs, kinds of religion or general religious behaviors. Results indicated that the attitudes towards religion sampled by the C-NRAS and the ROS, were related in a complex manner to social attitudes sampled by several other variables.

The findings of the present research reinforced Hunt and King's conclusion that, "There seems little doubt that what deserves to be called 'religious' behavior is involved in the personality structure at its deepest levels, and probably in multiple ways" (1971, p. 355). The present research worked only with verbal expressions of attitudes, but these showed complex and interesting relationships. Further research is needed to explore causative relationships among the variables which were found to be related. It is believed that the present study may lead to practical applied work which will assist religious leaders to better understand the people with whom they work and how to work with them more effectively.

Other Questions

Hoge stated in a discussion of measurement problems that must be

faced in research in the area of religious motivation, "Future research requires measurement scales maximally free from problems of cognitive diffuseness, response-set bias, and social desirability" (1972, p. 375). It is believed that the present research properly accounted for each of these problems. The nature of the development of the C-NRAS scales was such that the cognitive constructs measured were empirically derived (Meyer, 1972). The problem of response-set bias was handled by isolating the indiscriminately pro-religious group and by considering those Ss as a special group to be analyzed separately. This turned response bias into a variable to be considered and accounted for. Social desirability was also accounted for by including the Crowne and Marlowe (1964) scale as part of the study. It was correlated significantly with eight of the twelve dependent variables. But the highest correlation was on C-NRAS factor A, which at .266 accounts for only seven percent of the total variance.

Hoge and Carroll, in a study cited in the introduction of this paper, found no "noteworthy relationships" between intrinsic religious motivation and prejudice, but found "substantial correlations" for extrinsic religiosity (1973, p. 189). The present research found only slight correlations between both ROS Intrinsic and Extrinsic and the Altered Ethnocentrism Scale. However, while all three committed factors of C-NRAS were not correlated meaningfully with ethnocentrism, nominal factors C-NRAS C and D were slightly correlated and C-NRAS B was strongly correlated with ethnocentrism. Hoge and Carroll partialled the correlations for the four variables thought to be responsible for prejudice

and found that status concern, dogmatism and anomie accounted for most of the covariance between extrinsic religiosity and prejudice. This study found a .474 correlation between C-NRAS B and Dogmatism and a .569 correlation between factor B and ethnocentrism. Therefore, dogmatism could have been responsible for much of the variance of factor B on ethicalism. Social Desirability could also be hypothesized to account for some of the variance in prejudice, but this was not found in the present study.

Generalizability

Several factors tended to limit the generalizability of the present study. First, all Ss were males. Secondly, they were drawn from a limited geographic region, and only from certain urban areas in that region. They were also upper class or middle class individuals with above average educations. Ss were predominately from the major Christian denominations and a disproportionate number held church offices. They were more fundamental and less ethnocentric, dogmatic, and responsive to socially desirable statements than would have been expected. They were also more committed and intrinsic and less nominal and extrinsic than would be expected, and they were all volunteers.

Because the "indiscriminately pro-religious" group was not isolated as a variable, results were further limited. The fact that Allport found approximately one third of his Ss to be indiscriminately pro-religious indicated that this group accounted for a large proportion of the variance in the analysis. In the present study, about ten percent were included in the indiscriminately pro-religious group. But

these were not partialled out in the canonical correlation analysis nor included as a variable in the multiple analysis of variance.

Therefore, the results must be looked upon as limited in their generalizability because of the above. Results obtained from the canonical correlation analysis are also limited to consideration as indicators of relationships and not as proof of causality. Results must be seen as heuristic to a large degree, since any definitive statements must be made from further research into relationships brought out in the present research.

CONCLUSIONS

Results of the present study indicated that there are separate dimensions of committed and nominal religious attitudes. However, it was also demonstrated that two general factors underlie separate variables in each of two categories. These general factors were also related to Allport's concepts, committed with intrinsic and nominal with extrinsic. The general factor of commitment was also strongly related to fundamentalism, to older Ss and to those who held a position of leadership in the church. It was moderately related to indiscriminately pro-religious attitudes, political conservatism and a higher level of education. Ss responding to this factor attended more services and functions than other Ss. The general factor of nominalism was found only in the canonical correlation of the twelve dependent variables. It was strongly related to both ethnocentrism and dogmatism.

Two other strong canonical factors appeared among the twenty variables in the overall canonical correlation analysis. The first strongly related C-NRAS B with fundamentalism, ethnocentrism, dogmatism, political conservatism, and lower levels of: religious position, social status and education. The other major canonical variate consisted of the three committed factors and fundamentalism. This variate had a lesser relationship with intrinsic religiosity. This variate was also related to attendance of services and, to a lesser degree, functions and to younger Ss. It had a slight relationship to religious leadership positions.

The multiple analysis of variance found the variables of age, social status as measured by the McGuire-White index, the number of services attended, the number of functions attended and political position significant. Manova canonical variable loadings and univariate analysis of variance comparisons were obtained to clarify the specific relationships between variables.

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A P P E N D I C E S

APPENDIX A

11347 Newkirk #1093
Dallas, Texas 75229
December 14, 1973

Dear

Accompanying this letter are the scales for my research. I would like you to distribute them and then collect them and then mail them back to me in the enclosed self-addressed, postage paid envelope. Please tell everyone that you would like them back in one week, but give them at least two weeks if they need it. I would like to have the scales back in about one month if at all possible.

In passing out the scales, try to get them to people of various ages, backgrounds, and ideas. Try to get the best selection of social, economic and educational levels that you can. Remember though, that this research is limited only to men, 18 years and older. Be sure not to write any names of the respondents on the forms since their answers are to be anonymous.

Thank you very much for your help. I will send you a copy of the results when they are available. It will take several months to complete the study, however, so it may be a while before you hear from me.

Sincerely yours,

Roger A. Meyer, M.A.
Graduate Fellow
Louisiana State University

RAM:elm

Attachment: Research scales

APPENDIX B

11347 Newkirk #1093
Dallas, Texas 75229
December 14, 1973

Dear Friend:

Attached are a number of scales which are part of a research project aimed at understanding our religious and social attitudes. You are being asked to answer all of the scales and return them to the person who gave them to you within one week. This research is completely anonymous, so please do not put your name anywhere on the form. If you wish to know more about this research and the results that are obtained, please let the person who gave you the questionnaire know. He will receive a copy of the results in several months when the project is complete.

I want to thank you for taking part in this project. While it is not as dramatic as finding a cure for cancer, this research will add to our overall scientific knowledge.

Sincerely yours,

Roger A. Meyer, M.A.
Graduate Fellow
Louisiana State University

RAM:elm

Attachments: Research scales

DIRECTIONS

Please fill in the following information. It is very important for our research for you to give us all of the information requested. Please do not write your name on the form anywhere since we wish to protect your anonymity.

Age: _____ Sex M F Race: _____
(Circle one)

City & State: _____ Highest level of education: _____

Occupation of head of household: _____

Social status level of family (estimate and check one):

- _____ Upper-upper
- _____ Lower-upper
- _____ Upper-middle
- _____ Middle-middle
- _____ Lower-middle
- _____ Upper-lower
- _____ Lower-lower

Religious affiliation (Catholic, Methodist, Southern Baptist, Pentacostal, Reformed Judaism, etc.): _____

Religious position: (Minister, deacon, church school teacher, layman, etc.) _____

Number of church worship services attended in an average month: _____

Number of other church functions attended in an average month (Socials, circles, classes, service group, fellowship group, discussion group, other) _____

(Please circle type or types)

Political position (estimate and check one):

- _____ Radical liberal
- _____ Liberal
- _____ Left of center
- _____ Middle of the road
- _____ Right of center
- _____ Conservative
- _____ Ultra Conservative

(Directions) 2.

On the following pages are statements about social and religious beliefs, attitudes, and opinions. We all think differently about such matters, and this form is an attempt to let you express your beliefs and opinions. There are no right or wrong answers since everyone has a right to his own thinking. Please respond to the items according to the following scale by circling the number of your choice:

Agree Completely	+3
Agree Strongly	+2
Agree	+1
Disagree	-1
Disagree Strongly	-2
Disagree Completely	-3

Do not spend too much time on any one statement. Answer as best you can and then go on; don't go back once you've answered a statement since you will tend to read ideas into it that are not intended.

ITEM	RESPONSE					
	Agree			Disagree		
1. I feel that my religion makes my life worthwhile.	+3	+2	+1	-1	-2	-3
2. Some people act as if church work is all I have to do.	+3	+2	+1	-1	-2	-3
3. Most ministers should improve their sermons to make them interesting to people.	+3	+2	+1	-1	-2	-3
4. I reserve time on the Sabbath for fulfilling religious duties.	+3	+2	+1	-1	-2	-3
5. I never trust anyone who doesn't believe in God.	+3	+2	+1	-1	-2	-3
6. I do not mind discussing my religious convictions with those who disagree.	+3	+2	+1	-1	-2	-3
7. Hippies prove that when people of their type have too much freedom, they just take advantage and cause trouble.	+3	+2	+1	-1	-2	-3
8. I enjoy talking to others about my religious beliefs.	+3	+2	+1	-1	-2	-3
9. Anyone who wants to be socially respectable should belong to some church.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
10. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.	+3	+2	+1	-1	-2	-3
11. I feel that I should attend worship services whenever I can.	+3	+2	+1	-1	-2	-3
12. I feel that I can learn a great deal from talking to others about living a religious life.	+3	+2	+1	-1	-2	-3
13. I think it is more important to live a good life now than to bother about life after death.	+3	+2	+1	-1	-2	-3
14. I love to dress up in new clothes for Easter services.	+3	+2	+1	-1	-2	-3
15. I am thankful for the guidance of others in improving my religious life.	+3	+2	+1	-1	-2	-3
16. In times like these, a person must be pretty selfish if he considers primarily his own happiness.	+3	+2	+1	-1	-2	-3
17. If Negroes live poorly, it's mainly because they are naturally lazy, ignorant and without self-control.	+3	+2	+1	-1	-2	-3
18. I think churches should have more revivals	+3	+2	+1	-1	-2	-3
19. Negroes have their rights but it is best to keep them in their own neighborhoods and schools and to prevent too much contact with whites.	+3	+2	+1	-1	-2	-3
20. I feel that 10% of my earnings is the beginning point and not the goal of my giving to God.	+3	+2	+1	-1	-2	-3
21. Most of my activities center around the church.	+3	+2	+1	-1	-2	-3
22. I am not ashamed to tell people exactly what I give to the church.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
23. For the good of all, the Mexicans who have flooded into the Southwest should be sent back home as soon as possible.	+3	+2	+1	-1	-2	-3
24. The highest form of government is a democracy and the highest form of democracy is a government run by those who are most intelligent.	+3	+2	+1	-1	-2	-3
25. While some things upset me, I try not to dwell on them.	+3	+2	+1	-1	-2	-3
26. The church needs to work hard to keep our children from becoming hippies.	+3	+2	+1	-1	-2	-3
27. There is nothing new under the sun.	+3	+2	+1	-1	-2	-3
28. All of my religious activities are habits.	+3	+2	+1	-1	-2	-3
29. I always make an effort to be of help to others.	+3	+2	+1	-1	-2	-3
30. I think everyone should make a special effort to attend church on Easter Sunday.	+3	+2	+1	-1	-2	-3
31. The worst crime a person could commit is to attack publicly the people who believe the same thing he does.	+3	+2	+1	-1	-2	-3
32. Heaven and Hell are very real to me.	+3	+2	+1	-1	-2	-3
33. I have always done my religious duties as my parents taught me.	+3	+2	+1	-1	-2	-3
34. Most people just don't give a "damn" for others.	+3	+2	+1	-1	-2	-3
35. I am absolutely certain about my religious beliefs.	+3	+2	+1	-1	-2	-3
36. I firmly hold to my religious convictions.	+3	+2	+1	-1	-2	-3
37. There may be a few exceptions, but in general, Jews are pretty much alike.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
38. It is often desirable to reserve judgment about what is going on until one has had a chance to hear the opinions of those one respects.	+3	+2	+1	-1	-2	-3
39. One should always attempt to deepen his understanding of his faith.	+3	+2	+1	-1	-2	-3
40. I try to handle any rough situation with prayer.	+3	+2	+1	-1	-2	-3
41. The main thing in life is for a person to want to do something important.	+3	+2	+1	-1	-2	-3
42. A man who does not believe in some great cause has not really lived.	+3	+2	+1	-1	-2	-3
43. God is more important to me than my family.	+3	+2	+1	-1	-2	-3
44. My religious beliefs have carried me through bereavement and happiness.	+3	+2	+1	-1	-2	-3
45. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.	+3	+2	+1	-1	-2	-3
46. I don't mind giving money to keep up the church building.	+3	+2	+1	-1	-2	-3
47. I have never worried about giving beyond my means.	+3	+2	+1	-1	-2	-3
48. Personal problems have strengthened my faith.	+3	+2	+1	-1	-2	-3
49. My faith has given me the confidence to do things.	+3	+2	+1	-1	-2	-3
50. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.	+3	+2	+1	-1	-2	-3
51. I usually attend church if I have nothing pressing to be done.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
52. You shouldn't bore non-religious people by discussing your religion with them.	+3	+2	+1	-1	-2	-3
53. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what others are saying.	+3	+2	+1	-1	-2	-3
54. I enjoy telling others who are interested about my religious concerns.	+3	+2	+1	-1	-2	-3
55. I am sometimes embarrassed when people talk personally about their religious life.	+3	+2	+1	-1	-2	-3
56. I try to follow the teaching of my faith.	+3	+2	+1	-1	-2	-3
57. I find forgiveness through confession to God.	+3	+2	+1	-1	-2	-3
58. No wrong is unforgiveable in God's eyes.	+3	+2	+1	-1	-2	-3
59. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.	+3	+2	+1	-1	-2	-3
60. Once I get wound up in a heated discussion I just can't stop.	+3	+2	+1	-1	-2	-3
61. I feel very secure in my faith in God.	+3	+2	+1	-1	-2	-3
62. I try to give both of my time and of my money to the service of God.	+3	+2	+1	-1	-2	-3
63. I have always tried to be a regular guy both while I'm in church and when I'm not.	+3	+2	+1	-1	-2	-3
64. In a discussion, I often find it necessary to repeat myself several times to make sure I am understood.	+3	+2	+1	-1	-2	-3
65. One can promote peace and justice through the church.	+3	+2	+1	-1	-2	-3
66. I do not mind giving to a church building fund since I can see where my money is going.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
67. I try to worship at the weekday services as well as on the Sabbath.	+3	+2	+1	-1	-2	-3
68. A person who gets enthusiastic about too many causes is likely to be a pretty "wishy-washy" sort of person.	+3	+2	+1	-1	-2	-3
69. Fundamentally, the world we live in is a pretty lonesome place.	+3	+2	+1	-1	-2	-3
70. One trouble with Jewish businessmen is that they stick together and prevent other people from having a fair chance in competition.	+3	+2	+1	-1	-2	-3
71. I enjoy reading religious magazines and literature.	+3	+2	+1	-1	-2	-3
72. All the miracles in the Bible are true.	+3	+2	+1	-1	-2	-3
73. I try to be realistic in applying religious ideals to my life.	+3	+2	+1	-1	-2	-3
74. I try to read the Holy Word regularly.	+3	+2	+1	-1	-2	-3
75. I feel completely forgiven by God.	+3	+2	+1	-1	-2	-3
76. Most people have some mental reservations about the teachings of the church.	+3	+2	+1	-1	-2	-3
77. I attend church more often than most of my neighbors.	+3	+2	+1	-1	-2	-3
78. I have never been embarrassed about discussing my religious convictions.	+3	+2	+1	-1	-2	-3
79. I feel that my relationship with God influences all of my life.	+3	+2	+1	-1	-2	-3
80. I do not always measure up to my own religious ideals.	+3	+2	+1	-1	-2	-3
81. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.	+3	+2	+1	-1	-2	-3
82. I always temper my religious beliefs with reality.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
83. I wish ministers would preach more on the Bible and less on politics.	+3	+2	+1	-1	-2	-3
84. The people who raise all the talk about putting Negroes and Mexican-Americans on the same level as whites are mostly radical agitators trying to stir up conflicts.	+3	+2	+1	-1	-2	-3
85. I would give my life for my faith.	+3	+2	+1	-1	-2	-3
86. My religious beliefs are such that I must speak out against what I feel is wrong.	+3	+2	+1	-1	-2	-3
87. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.	+3	+2	+1	-1	-2	-3
88. I try not to accept responsibilities in the work of the church that I cannot fulfill completely.	+3	+2	+1	-1	-2	-3
89. It is impossible to be happy without being deeply religious.	+3	+2	+1	-1	-2	-3
90. I worry most about what may happen to me that I'm not expecting.	+3	+2	+1	-1	-2	-3
91. There are two kinds of people in this world: those who are for the truth and those who are against the truth.	+3	+2	+1	-1	-2	-3
92. There is so much to be done and so little time to do it in.	+3	+2	+1	-1	-2	-3
93. I feel that prayer is essential to my life.	+3	+2	+1	-1	-2	-3
94. My faith has helped me to accept misfortunes.	+3	+2	+1	-1	-2	-3
95. My ideas on religion have always been fairly loose.	+3	+2	+1	-1	-2	-3
96. I think it is more important to go to church than to be active in politics.	+3	+2	+1	-1	-2	-3
97. My faith helps me to conquer all my fears.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
98. The United States and Russia have just about nothing in common.	+3	+2	+1	-1	-2	-3
99. Through confession to God, I have found peace.	+3	+2	+1	-1	-2	-3
100. Most people just don't know what's good for them.	+3	+2	+1	-1	-2	-3
101. Religion is important in one's getting the best from life.	+3	+2	+1	-1	-2	-3
102. One should make his moral decisions according to the situation at hand.	+3	+2	+1	-1	-2	-3
103. A group which tolerates too many differences of opinion among its own members cannot exist for long.	+3	+2	+1	-1	-2	-3
104. Church attendance is one of my good habits.	+3	+2	+1	-1	-2	-3
105. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.	+3	+2	+1	-1	-2	-3
106. Beautiful church rituals are the greatest part of religion to me.	+3	+2	+1	-1	-2	-3
107. Of all the different philosophies which exist in this world there is probably only one which is correct.	+3	+2	+1	-1	-2	-3
108. I don't have time to worry about religion when I'm not at the church.	+3	+2	+1	-1	-2	-3
109. I feel I am qualified to give people advice on many aspects of religion.	+3	+2	+1	-1	-2	-3
110. My being a church member has helped me many times in my business life.	+3	+2	+1	-1	-2	-3
111. I feel I have established many good contacts at church.	+3	+2	+1	-1	-2	-3
112. If given the chance I would do something of great benefit to the world.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
113. I think the different races are more comfortable in their own churches.	+3	+2	+1	-1	-2	-3
114. I'd like it if I could find someone who would tell me how to solve my personal problems.	+3	+2	+1	-1	-2	-3
115. It is a mistake to have Negroes for foremen and leaders over whites.	+3	+2	+1	-1	-2	-3
116. I feel everyone should send his children to services on the Sabbath.	+3	+2	+1	-1	-2	-3
117. There are a number of people I have come to hate because of the things they stand for.	+3	+2	+1	-1	-2	-3
118. One of the main reasons I attend church is to see my old friends.	+3	+2	+1	-1	-2	-3
119. Most church leaders should learn how to run things in a business-like way.	+3	+2	+1	-1	-2	-3
120. It is only natural for a person to be rather fearful of the future.	+3	+2	+1	-1	-2	-3
121. I trust God completely with my life.	+3	+2	+1	-1	-2	-3
122. I feel that my religious convictions have had a positive influence on all aspects of my life.	+3	+2	+1	-1	-2	-3
123. I can hardly imagine myself marrying a Jew.	+3	+2	+1	-1	-2	-3
124. A person who thinks primarily of his own happiness is beneath contempt.	+3	+2	+1	-1	-2	-3
125. I feel it is a bad policy to disagree with anyone about religious beliefs.	+3	+2	+1	-1	-2	-3
126. I have found peace with myself because of my religion.	+3	+2	+1	-1	-2	-3
127. I have never questioned the teachings of my church.	+3	+2	+1	-1	-2	-3
128. Many church leaders are not forceful enough in handling the church's business.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
129. I have received a great deal from religion in times of crisis.	+3	+2	+1	-1	-2	-3
130. I try to apply my religious convictions to my work.	+3	+2	+1	-1	-2	-3
131. I think the church offering should be used locally.	+3	+2	+1	-1	-2	-3
132. I enjoy visiting sick or shut-in people to cheer them up.	+3	+2	+1	-1	-2	-3
133. Prayer and meditation seem to be good for those who have time for them.	+3	+2	+1	-1	-2	-3
134. Many church leaders cannot accept qualified advice on handling the church's business.	+3	+2	+1	-1	-2	-3
135. The primary responsibility of everyone is to work for his own salvation.	+3	+2	+1	-1	-2	-3
136. You can generally judge a man by the religious denomination to which he belongs.	+3	+2	+1	-1	-2	-3
137. I enjoy meeting my friends at church.	+3	+2	+1	-1	-2	-3
138. There is a part of myself which belongs only to me.	+3	+2	+1	-1	-2	-3
139. I try to be conscientious in my spiritual life.	+3	+2	+1	-1	-2	-3
140. My blood boils whenever a person stubbornly refuses to admit he's wrong.	+3	+2	+1	-1	-2	-3
141. I have never blamed God for my misfortunes.	+3	+2	+1	-1	-2	-3
142. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein, or Beethoven, or Shakespeare.	+3	+2	+1	-1	-2	-3
143. I get a great deal from all of the services celebrated in the church.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
144. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.	+3	+2	+1	-1	-2	-3
145. I seldom study religious materials outside of church-school and worship services.	+3	+2	+1	-1	-2	-3
146. I have always tried to do what was expected of me in the church.	+3	+2	+1	-1	-2	-3
147. It's good to send your children to church activities to keep them out of trouble.	+3	+2	+1	-1	-2	-3
148. Man on his own is a helpless and miserable creature.	+3	+2	+1	-1	-2	-3
149. It is only when a person devotes himself to an ideal that his life becomes meaningful.	+3	+2	+1	-1	-2	-3
150. I think that there is practically no difference between what the different Protestant churches believe.	+3	+2	+1	-1	-2	-3
151. I hope their religious training at church will keep my children from picking up my bad habits.	+3	+2	+1	-1	-2	-3
152. I tried to be faithful until so many things happened to me.	+3	+2	+1	-1	-2	-3
153. Many people become carried away by their religion.	+3	+2	+1	-1	-2	-3
154. I find prayer more comforting than a good friend's concern.	+3	+2	+1	-1	-2	-3
155. I attend worship services to gain guidance for everyday life.	+3	+2	+1	-1	-2	-3
156. In the history of mankind there have probably been only a handful of really great thinkers.	+3	+2	+1	-1	-2	-3
157. Others may be very sincere in holding beliefs that are different from my own.	+3	+2	+1	-1	-2	-3

ITEM	RESPONSE					
	Agree			Disagree		
158. I frequently engage in personal prayers.	+3	+2	+1	-1	-2	-3
159. A large church wedding ceremony is the best way to start off a marriage.	+3	+2	+1	-1	-2	-3
160. Humility is essential to a truly religious life.	+3	+2	+1	-1	-2	-3
161. I have tried to learn from my sins.	+3	+2	+1	-1	-2	-3
162. Some churches should not be allowed to teach the things that they do.	+3	+2	+1	-1	-2	-3
163. Only those who accept the doctrines of my own church will be saved.	+3	+2	+1	-1	-2	-3
164. It is better to be a dead hero than a live coward.	+3	+2	+1	-1	-2	-3
165. The present is all too often full of unhappiness. It is only the future that counts.	+3	+2	+1	-1	-2	-3
166. All of my friends are in the same church as I.	+3	+2	+1	-1	-2	-3
167. I don't believe churches do enough about saving souls.	+3	+2	+1	-1	-2	-3
168. Unfortunately a good many people with whom I have discussed important social and moral problems don't really understand what's going on.	+3	+2	+1	-1	-2	-3
169. I try to point out to people the true teachings of the church.	+3	+2	+1	-1	-2	-3
170. I think we should emphasize education in religion and not conversion.	+3	+2	+1	-1	-2	-3
171. The trouble with letting Jews into a nice neighborhood is that they gradually give it a typical Jewish atmosphere.	+3	+2	+1	-1	-2	-3
172. I think it is more serious to break God's law than to break man's law.	+3	+2	+1	-1	-2	-3
173. I try to guide my daily life by the Holy Word, not common sense or experience.	+3	+2	+1	-1	-2	-3

PLEASE CIRCLE THE LETTER OF THE ANSWER YOU MOST CLOSELY AGREE WITH.

1. It is important to me to spend periods of time in private religious thought and meditation.
 - a. frequently
 - b. occasionally
 - c. rarely
 - d. never
2. The church is most important as a place to formulate good social relationships.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
3. Religion is especially important to me because it answers many questions about the meaning of life.
 - a. definitely disagree
 - b. tend to disagree
 - c. tend to agree
 - d. definitely agree
4. I try hard to carry my religion over into all my other dealings in life.
 - a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
5. Occasionally I find it necessary to compromise my religious beliefs in order to protect my social and economic well-being.
 - a. definitely disagree
 - b. tend to disagree
 - c. tend to agree
 - d. definitely agree
6. Religion helps to keep my life balanced and steady in exactly the same way as my citizenship, friendships, and other memberships do.
 - a. I definitely agree
 - b. I tend to agree
 - c. I tend to disagree
 - d. I definitely disagree

7. If not prevented by unavoidable circumstances, I attend church:
- a. more than once a week
 - b. about once a week
 - c. two or three times a month
 - d. less than once a month
8. If I were to join in a church group I would prefer to join (1) a Bible Study group or (2) a social fellowship.
- a. I would prefer to join a Bible Study group
 - b. I probably would prefer a Bible Study group
 - c. I probably would prefer a social fellowship
 - d. I would prefer to join a social fellowship
9. The primary purpose of prayer is to gain relief and protection.
- a. I definitely agree
 - b. I tend to agree
 - c. I tend to disagree
 - d. I definitely disagree
10. One reason for my being a church member is that such membership helps to establish a person in the community.
- a. definitely not true
 - b. tends not to be true
 - c. tends to be true
 - d. definitely true
11. The purpose of prayer is to secure a happy and peaceful life.
- a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
12. I pray chiefly because I have been taught to pray.
- a. definitely true of me
 - b. tends to be true
 - c. tends not to be true
 - d. definitely not true of me
13. What religion offers me most is comfort when sorrows and misfortune strike.
- a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree

14. I read literature about my faith (or church).
- a. frequently
 - b. occasionally
 - c. rarely
 - d. never
15. Although I believe in my religion, I feel there are many more important things to my life.
- a. I definitely disagree
 - b. I tend to disagree
 - c. I tend to agree
 - d. I definitely agree
16. Quite often I have been keenly aware of the presence of God or the Divine Being.
- a. definitely not true
 - b. tends not to be true
 - c. tends to be true
 - d. definitely true
17. A primary reason for my interest in religion is that my church is a congenial social activity.
- a. definitely not true of me
 - b. tends not to be true
 - c. tends to be true
 - d. definitely true of me
18. My religious beliefs are what really lie behind my whole approach to life.
- a. definitely not so
 - b. probably not so
 - c. probably so
 - d. definitely so
19. Although I am a religious person I refuse to let religious considerations influence my everyday affairs.
- a. definitely not true of me
 - b. tends not to be true
 - c. tends to be true
 - d. clearly true in my case
20. The prayers I say when I am alone carry as much meaning a personal emotion as those said by me during services.
- a. almost never
 - b. sometimes
 - c. probably so
 - d. definitely so

21. It doesn't matter so much what I believe so long as I lead a moral life.

- a. I definitely disagree
- b. I tend to disagree
- c. I tend to agree
- d. I definitely agree

LISTED BELOW ARE A NUMBER OF STATEMENTS CONCERNING PERSONAL ATTITUDES AND TRAITS. READ EACH ITEM AND DECIDE WHETHER THE STATEMENT IS TRUE OR FALSE AS IT PERTAINS TO YOU PERSONALLY. CIRCLE T FOR TRUE AND F FOR FALSE.

- T F 1. Before voting I thoroughly investigate the qualifications of all the candidates.
- T F 2. I never hesitate to go out of my way to help someone in trouble.
- T F 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- T F 4. I have never intensely disliked anyone.
- T F 5. On occasion I have had doubts about my ability to succeed in life.
- T F 6. I sometimes feel resentful when I don't get my way.
- T F 7. I am always careful about my manner of dress.
- T F 8. My table manners at home are as good as when I eat out in a restaurant.
- T F 9. If I could get into a movie without paying for it and be sure I was not seen, I probably would do it.
- T F 10. On a few occasions I have given up doing something because I thought too little of my ability.
- T F 11. I like to gossip at times.
- T F 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- T F 13. No matter who I'm talking to, I'm always a good listener.
- T F 14. I can remember "playing sick" to get out of something.
- T F 15. There have been occasions when I took advantage of someone.

- T F 16. I'm always willing to admit it when I make a mistake.
- T F 17. I always try to practice what I preach.
- T F 18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people.
- T F 19. I sometimes try to get even, rather than forgive and forget.
- T F 20. When I don't know something I don't at all mind admitting it.
- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never been irked when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.

Appendix C

Tables of Means

Means of Each Level of Each Independent Variable
for All Dependent Variables, with the Number of
Subjects per Cell.

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 LOC EDUC ESNW SSSE RELIGAP RELIGPCS SERVICES FUNCTION POLITPOS GROUP

N	AGE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
188	1	129.5862	53.5645	73.2040	67.0219	70.2002	91.0031	40.5756	23.9129	146.2803
		ROSEXT	ROSINT	SOCDESIR						
		30.7713	33.1941	12.7686						
<hr/>										
N	AGE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
106	2	129.6272	53.5785	72.0837	66.8297	71.2630	90.1784	40.1168	23.0198	141.3554
		ROSEXT	ROSINT	SOCDESIR						
		28.7546	33.5319	13.0191						
<hr/>										
N	AGE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
43	3	137.9158	54.0310	68.1238	73.0101	74.5141	98.0155	40.8520	23.5854	144.1338
		ROSEXT	ROSINT	SOCDESIR						
		26.9750	35.0615	14.5218						
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MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE EDUC SSMW SSSE RELIGAF RELIGPOS SERVICES FUNCTION POLITPOS GROUP

N	LOC	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
36	1	138.4907	53.5160	70.7189	71.6796	75.1948	92.5746	41.8281	24.1916	144.5220
		ROSEXT	ROSINT	SOCDESIR						
		28.7836	34.2887	15.1472						
<hr/>										
N	LOC	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
87	2	130.4821	55.7648	71.1693	69.7620	70.7196	93.9863	39.7013	22.8151	145.9829
		ROSEXT	ROSINT	SOCDESIR						
		29.2866	33.8790	14.1360						
<hr/>										
N	LOC	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
79	3	132.0226	51.6960	70.7985	67.7015	70.7317	92.6985	39.7228	21.7555	137.0658
		ROSEXT	ROSINT	SOCDESIR						
		28.6775	34.3777	12.2308						
<hr/>										
N	LOC	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
135	4	128.5103	53.9217	71.8674	66.6724	71.3237	93.0033	40.8571	25.2619	146.1218
		ROSEXT	ROSINT	SOCDESIR						
		20.5868	33.9712	12.2201						
<hr/>										

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC SSMW SSSE RELIGAF RELIGPOS SERVICES FUNCTION POLITPOS GROUP

N	EDUC	CRNASA	CRNASB	CRNASC	CRNASD	CRNAE	CRNASI	RELFUND	ALTETHNO	DOGMAT
32	1	136.8540	65.7927	71.3406	70.1133	73.4321	95.5065	41.7365	24.9275	149.5486
		ROSEXT	ROSINT	SOCDESTR						
		30.7221	34.4679	13.3128						

N	EDUC	CRNASA	CRNASB	CRNASC	CRNASD	CRNAE	CRNASI	RELFUND	ALTETHNO	DOGMAT
220	2	130.9371	53.7638	70.8866	68.6294	71.3195	92.2048	40.5556	23.3178	140.9060
		ROSEXT	ROSINT	SOCDESTR						
		29.0047	34.0268	13.7537						

N	EDUC	CRNASA	CRNASB	CRNASC	CRNASD	CRNAE	CRNASI	RELFUND	ALTETHNO	DOGMAT
85	3	129.3382	51.6175	71.1884	68.1190	71.2257	91.4858	39.2514	22.2729	141.3149
		ROSEXT	ROSINT	SOCDESTR						
		26.7740	33.8928	13.2400						

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LUC EDUC 55SE RELIGAF RELIGPOS SERVICES FUNCTION POLITP25 GROUP

N	SSM	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
207	1	130.1737	50.7006	71.3270	66.7448	70.4687	92.2492	38.7612	21.7436	139.8319
		ROSEXT	ROSINT	SOCDESIR						
		28.3232	33.8333	13.3106						
<hr/>										
N	SSM	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
130	2	134.5791	56.7487	70.9500	71.1011	71.5182	93.8822	42.2684	25.2684	148.0144
		ROSEXT	ROSINT	SOCDESIR						
		29.3440	34.4250	13.5604						
<hr/>										

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSNW RELIGAF RELIGPCS SERVICES FUNCTION POLITPOS GROUP

N	SSSE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
149	1	132.8586	55.5627	71.6396	70.9247	72.1069	92.2271	40.3735	24.0567	143.9667
		ROSEXT	ROSINT	SOCDESIR						
		29.2832	34.0524	13.5725						
<hr/>										
N	SSSE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
139	2	133.6921	55.4770	71.6381	70.8134	72.4109	93.4281	40.5533	23.8441	143.4615
		ROSEXT	ROSINT	SOCDESIR						
		29.7137	34.6124	13.6420						
<hr/>										
N	SSSE	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGNAT
49	3	130.5785	50.1943	70.1379	65.1235	71.4516	93.5419	40.6177	22.8173	144.3512
		ROSEXT	ROSINT	SOCDESIR						
		27.5040	33.7226	13.0919						
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MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSMW SESSE RELIGPOS SERVICES FUNCTION POLITPOS GROUP

N	RELIGAF	CRNASA	CRNASD	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
74	1	130.2691	55.4730	72.6118	67.7889	71.2505	91.7509	39.0924	24.2847	143.7440
		ROSEXT	ROSINT	SOCDESIR						
		29.9367	33.2517	12.7328						

N	RELIGAF	CRNASA	CRNASD	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
263	2	134.4837	51.9755	69.6652	70.1189	72.7344	94.1805	41.9372	22.7273	144.1029
		ROSEXT	ROSINT	SOCDESIR						
		27.7305	35.0066	14.1382						

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSMM SSSE RELIGAF SERVICES FUNCTION POLTIPOS GROUP

N	RELIGPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
47	1	134.6432	51.3870	68.3296	77.7652	69.9027	89.8301	41.7422	19.2292	147.1106
		ROSEXT	ROSINT	SOCDESIR						
		28.0667	32.7792	15.2832						
<hr/>										
N	RELIGPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
94	2	129.9207	53.3277	71.4032	67.4190	72.4110	91.1519	38.9178	26.8009	148.1258
		ROSEXT	ROSINT	SOCDESIR						
		29.9271	34.3530	12.2197						
<hr/>										
N	RELIGPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
159	3	132.3367	55.3703	70.6138	66.5568	72.8155	94.1048	41.0019	25.2061	144.0447
		ROSEXT	ROSINT	SOCDESIR						
		29.0578	35.1185	12.5219						
<hr/>										
N	RELIGPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHNO	DOGMAT
37	4	132.6051	54.8135	74.2075	64.0746	72.8406	97.1759	40.3973	22.7819	136.3516
		ROSEXT	ROSINT	SOCDESIR						
		28.2828	34.2659	13.7172						

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSNW SSSE RELIGAF RELIGPOS FUNCTION POLIFPOS GROUP

N	SERVICES	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
92	1	114.5167	50.7028	74.0021	59.0503	64.5892	79.4065	33.6931	23.3047	141.6607
		ROSEXT	RUSINT	SOCDESIR						
		32.3459	28.4565	11.8109						
<hr/>										
N	SERVICES	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
108	2	135.8116	54.4667	71.1637	71.7181	73.1467	94.4322	39.0124	23.2242	141.6219
		ROSEXT	RUSINT	SOCDESIR						
		27.3374	35.7204	13.1636						
<hr/>										
N	SERVICES	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
137	3	146.8009	55.9964	68.1698	76.0932	78.2415	105.3583	48.8390	23.9892	148.5472
		ROSEXT	RUSINT	SOCDESIR						
		26.8175	38.2166	15.6320						
<hr/>										

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSHW SSSE RELIGAF RELIGPOS SERVICES POLITPOS GROUP

N	FUNCTION	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGNAT
160	1	126.9865	54.5763	72.4317	66.0621	68.8908	87.2240	40.0984	24.0292	142.2051
		ROSEXT	ROSINT	SOCDESIR						
		30.2450	31.9680	13.7503						
<hr/>										
N	FUNCTION	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGNAT
82	2	132.9038	54.1632	69.4590	68.9093	72.0728	93.8653	41.3900	23.6032	142.6158
		ROSEXT	ROSINT	SOCDESIR						
		28.3819	34.9339	13.0852						
<hr/>										
N	FUNCTION	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGNAT
95	3	137.2390	52.2344	70.5248	71.8903	75.0077	96.1077	40.1561	22.8857	142.7486
		ROSEXT	ROSINT	SOCDESIR						
		27.8739	35.4856	13.4710						
<hr/>										

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSNW SSSE RELIGAF RELIGPOS SERVICES FUNCTION GROUP

N	POLITPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
137	1	129.1467	49.6935	71.0378	65.5399	69.9081	92.3810	36.0702	19.0110	114.6679
		ROSEXT	ROSINT	SOCDESIR						
		28.0885	33.5340	13.4777						
<hr/>										
N	POLITPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
87	2	130.7869	55.7477	71.7826	69.8523	71.7922	91.3701	42.5282	24.5153	148.5188
		ROSEXT	ROSINT	SOCDESIR						
		28.9167	34.0044	13.1761						
<hr/>										
N	POLITPOS	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
113	3	137.1956	55.5327	70.5951	71.4695	74.2771	95.4460	42.9460	26.9918	148.5828
		ROSEXT	ROSINT	SOCDESIR						
		29.4957	34.8491	13.6527						
<hr/>										

MULTIVARIATE ANALYSES OF SOCIAL AND RELIGIOUS ATTITUDES

MEANS ADJUSTED FOR 0 AGE LOC EDUC SSMW S5SE RELIGAF RELIGPOS SERVICES FUNCTION POLITPOS

N	GROUP	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
46	1	136.1062	56.6125	74.6248	65.6712	77.1889	95.1597	36.8598	27.8889	142.7735
		ROSEXT	RUSINT	SOCDESI						
		32.2984	37.0000	11.8178						
<hr/>										
N	GROUP	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
52	2	134.6153	55.4183	72.4756	69.3704	72.2378	95.6056	40.5650	20.6345	142.6335
		ROSEXT	RUSINT	SOCDESI						
		27.4048	34.7371	13.9792						
<hr/>										
N	GROUP	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
126	3	133.5280	52.9928	67.1240	72.6602	70.2046	93.3238	42.2278	22.7957	145.5273
		ROSEXT	RUSINT	SOCDESI						
		29.0503	33.5612	15.6288						
<hr/>										
N	GROUP	CRNASA	CRNASB	CRNASC	CRNASD	CRNASE	CRNASI	RELFUND	ALTETHND	DOGMAT
113	4	125.0561	49.8750	70.3297	68.1138	68.3385	88.1736	42.4066	22.7051	144.7583
		ROSEXT	RUSINT	SOCDESI						
		26.5809	31.2182	15.3163						
<hr/>										

Appendix D

Plots Between Groups on Canonical Variables for
the Overall Canonical Correlation Analysis of
20 Variables.

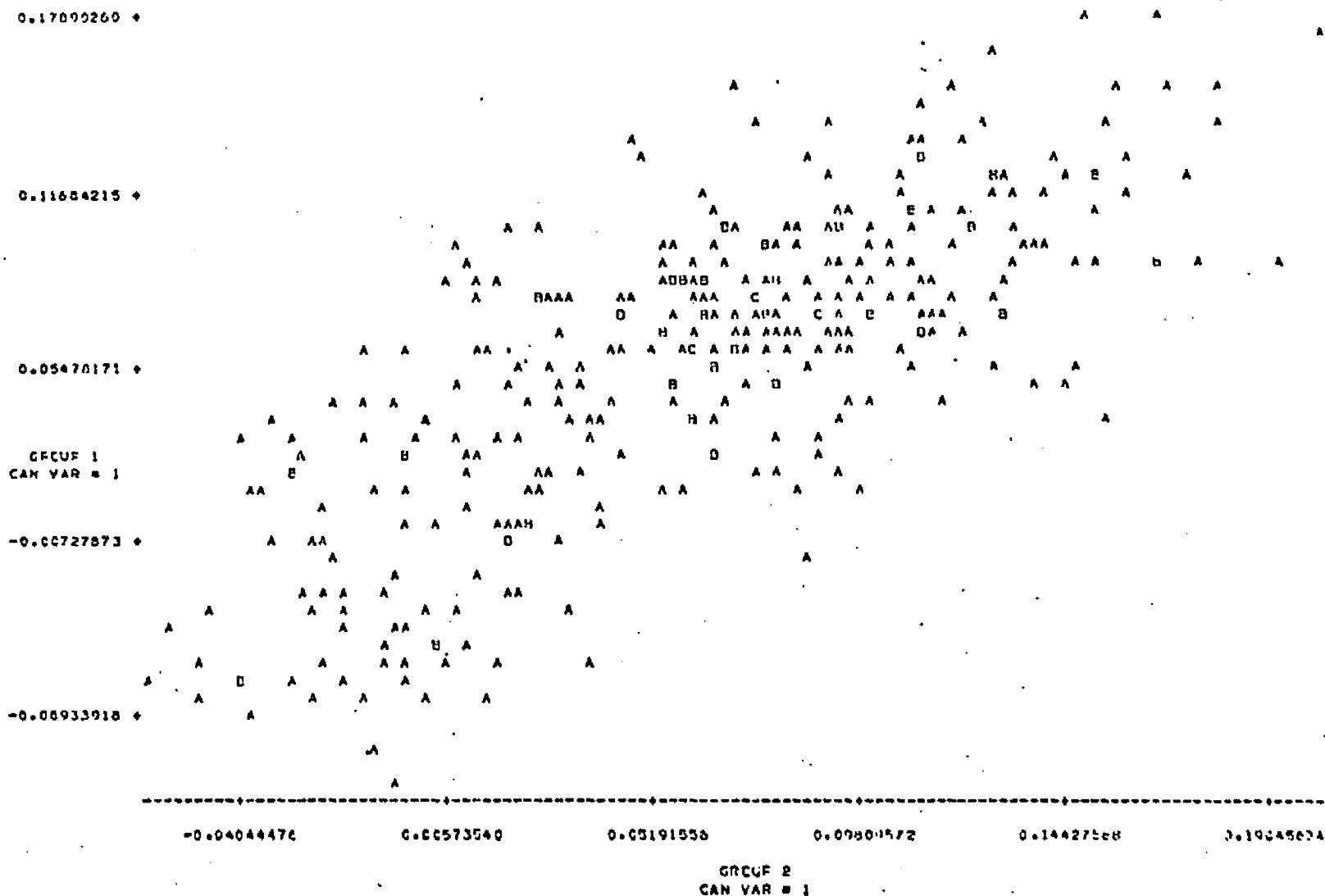


Fig. 1 Plot of group 1 canonical variable equal 1 versus group 2 canonical variable equal 1 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

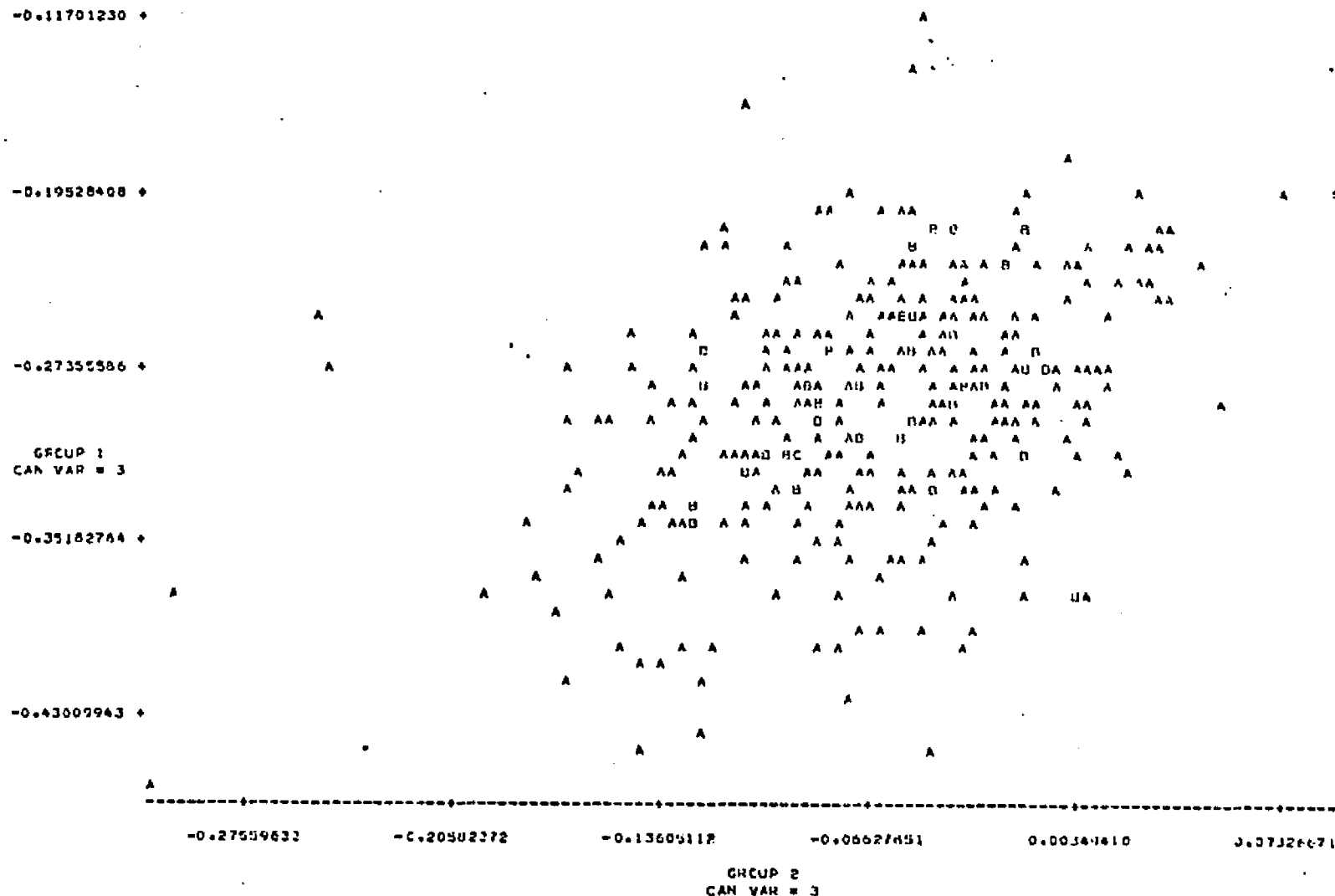


Fig. 3. Plot of group 1 canonical variable equal 3 versus group 2 canonical variable equal 3 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

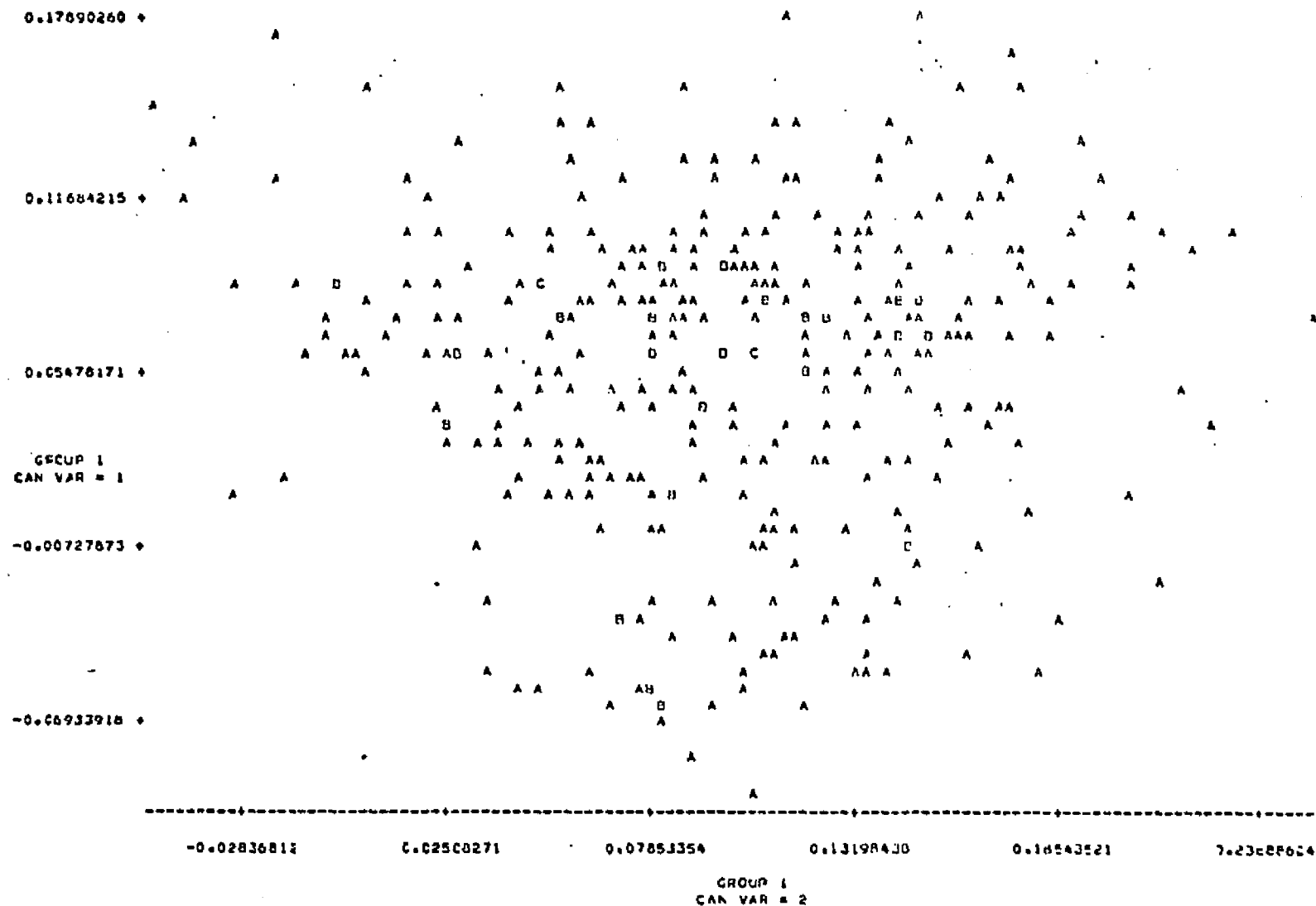


Fig. 4. Plot of group 1 canonical variable equal 1 versus group 1 canonical variable equal 2 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

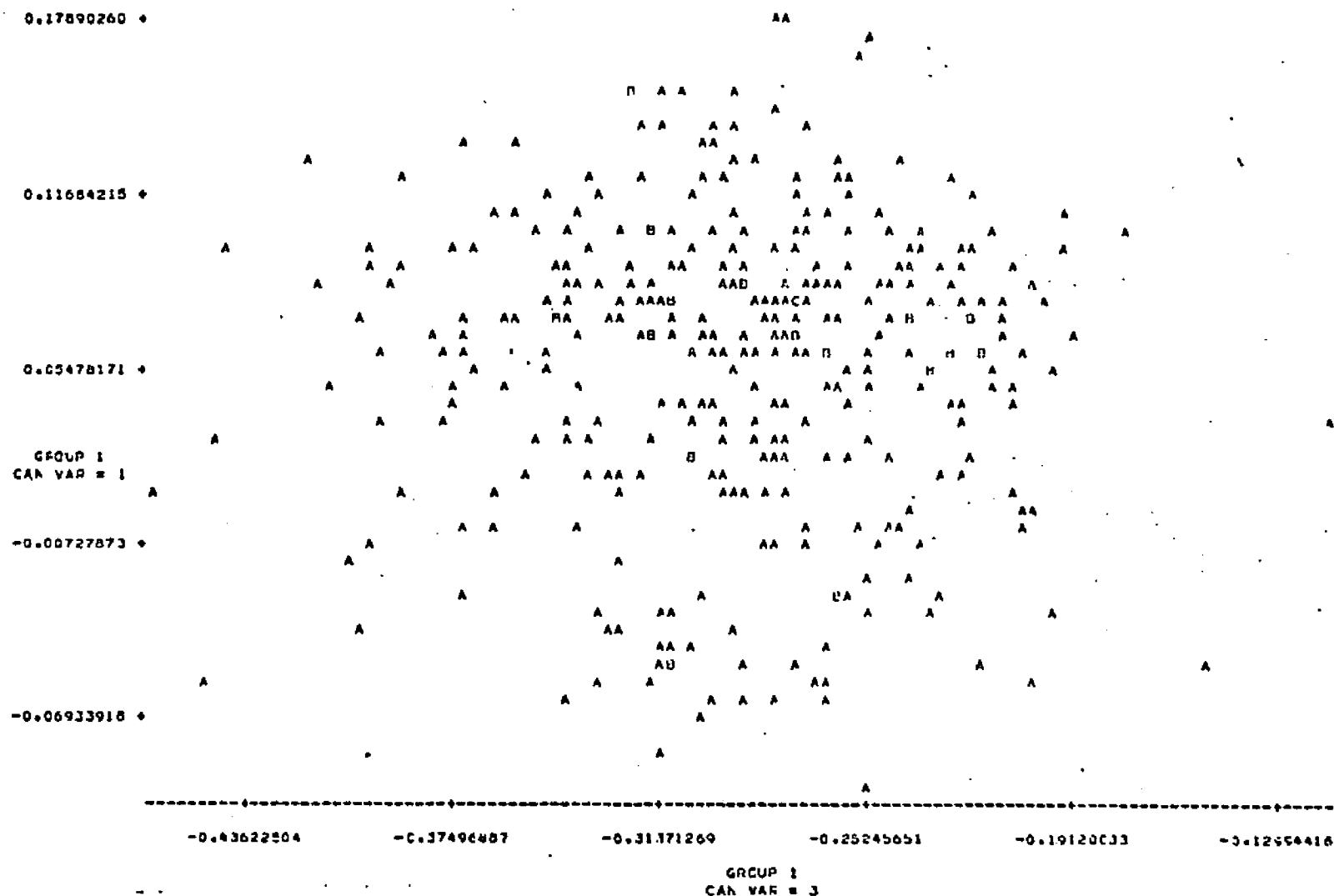


Fig. 5. Plot of group 1 canonical variable equal 1 versus group 1 canonical variable equal 3 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

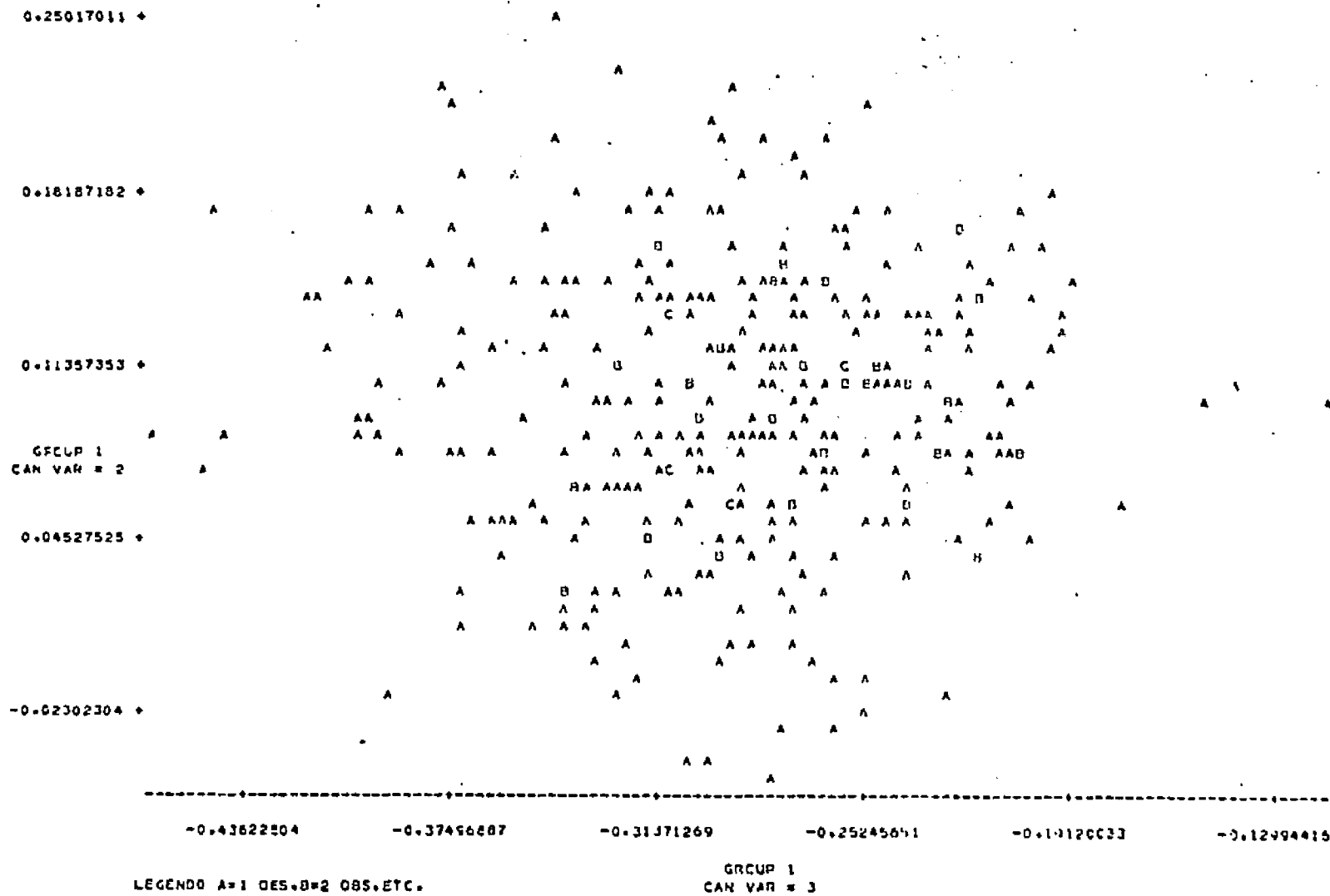


Fig. 6. Plot of group 1 canonical variable equal 2 versus group 1 canonical variable equal 3 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

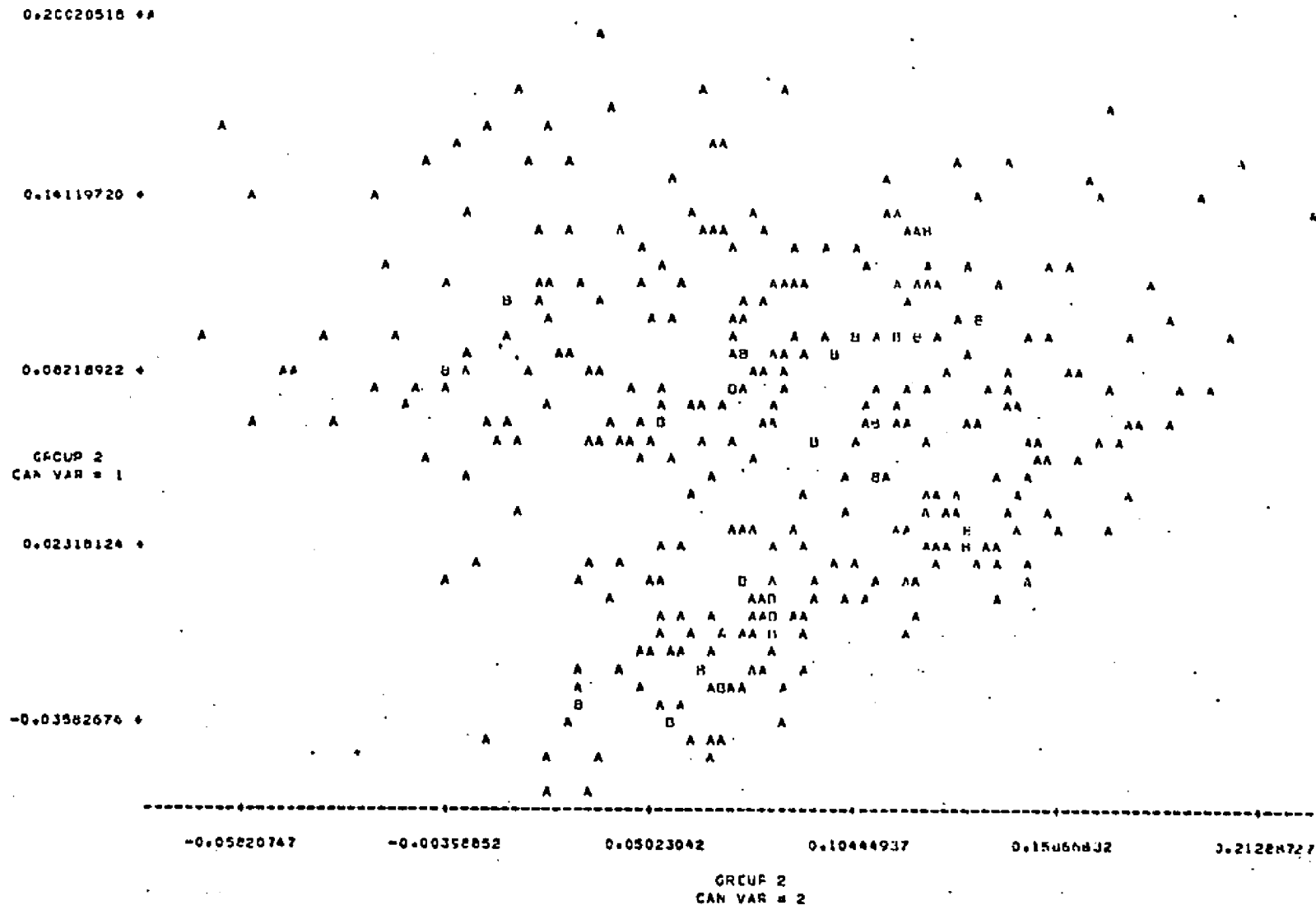


Fig. 7. Plot of group 2 canonical variable equal 1 versus group 2 canonical variable equal 2 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

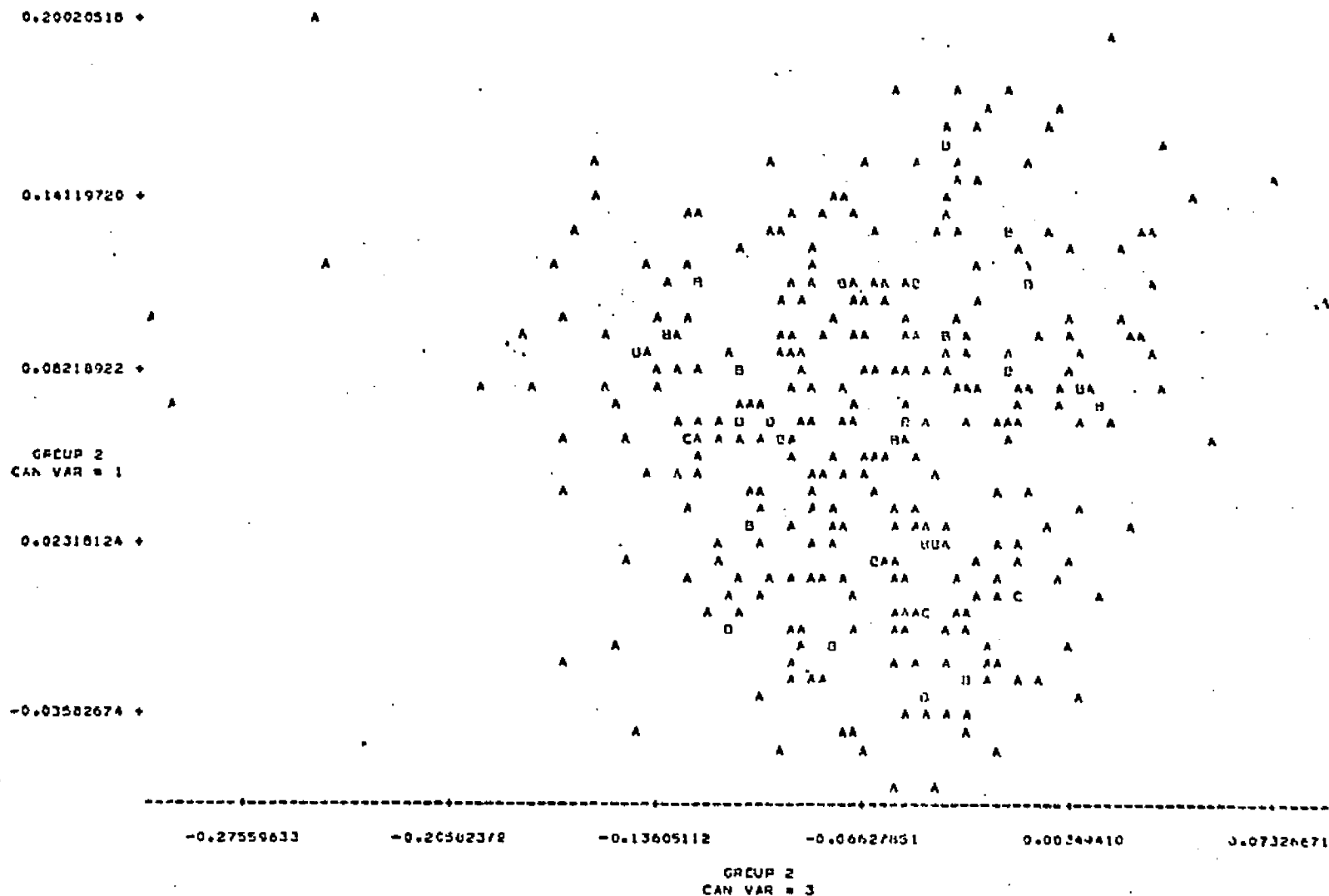


Fig. 8. Plot of group 2 canonical variable equal 1 versus group 2 canonical variable equal 3 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

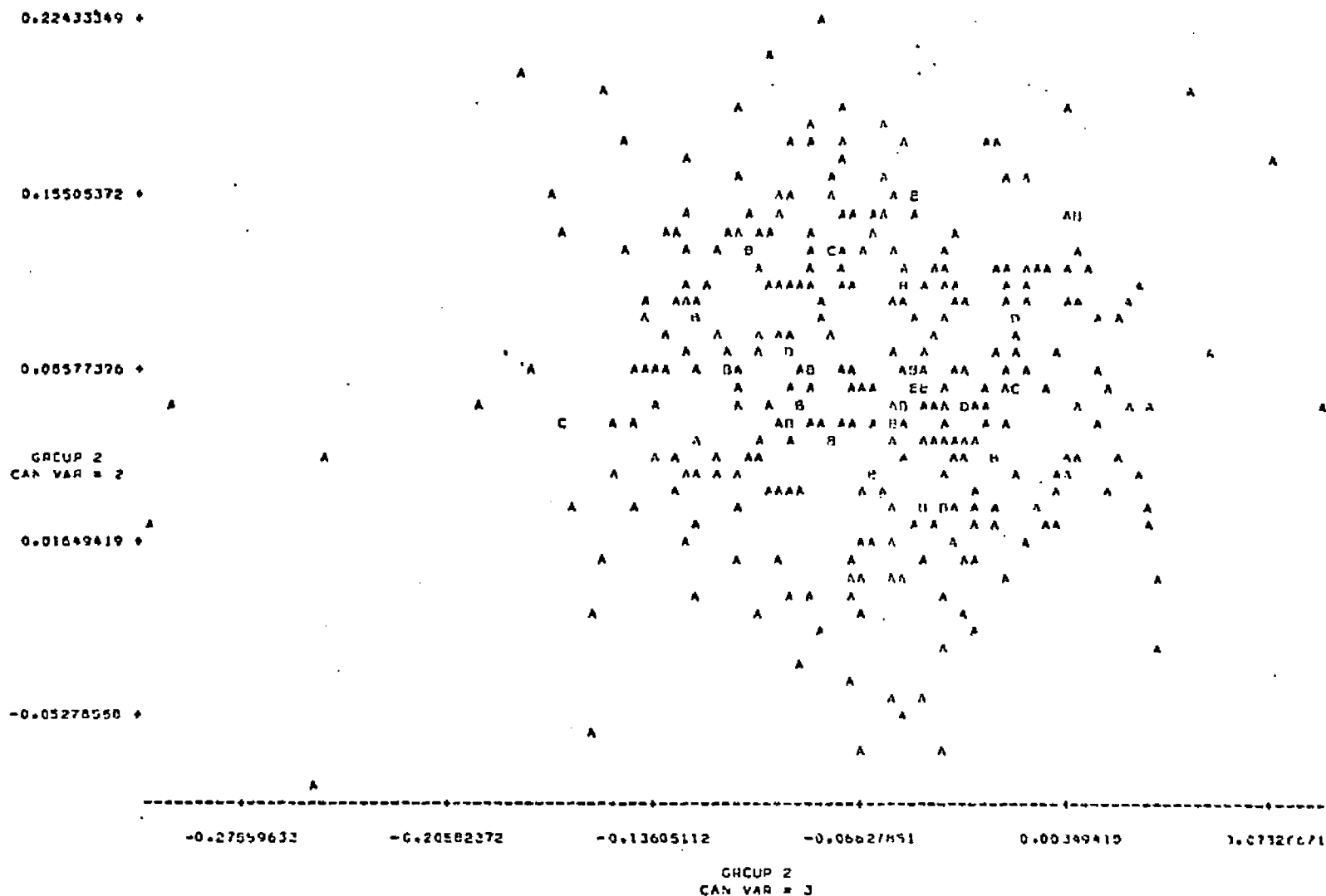


Fig. 9. Plot of group 2 canonical variable equal 2 versus group 2 canonical variable equal 3 for the overall canonical correlation analysis of 20 variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

Appendix E

Plots Between Groups on Canonical Variables for
the Canonical Correlation Analysis of 12 Dependent
Variables.

0.43037909 +

0.34358610 +

0.25679311 +

GROUP 1
CAN VAR = 1

0.17000012 +

0.08320712 +

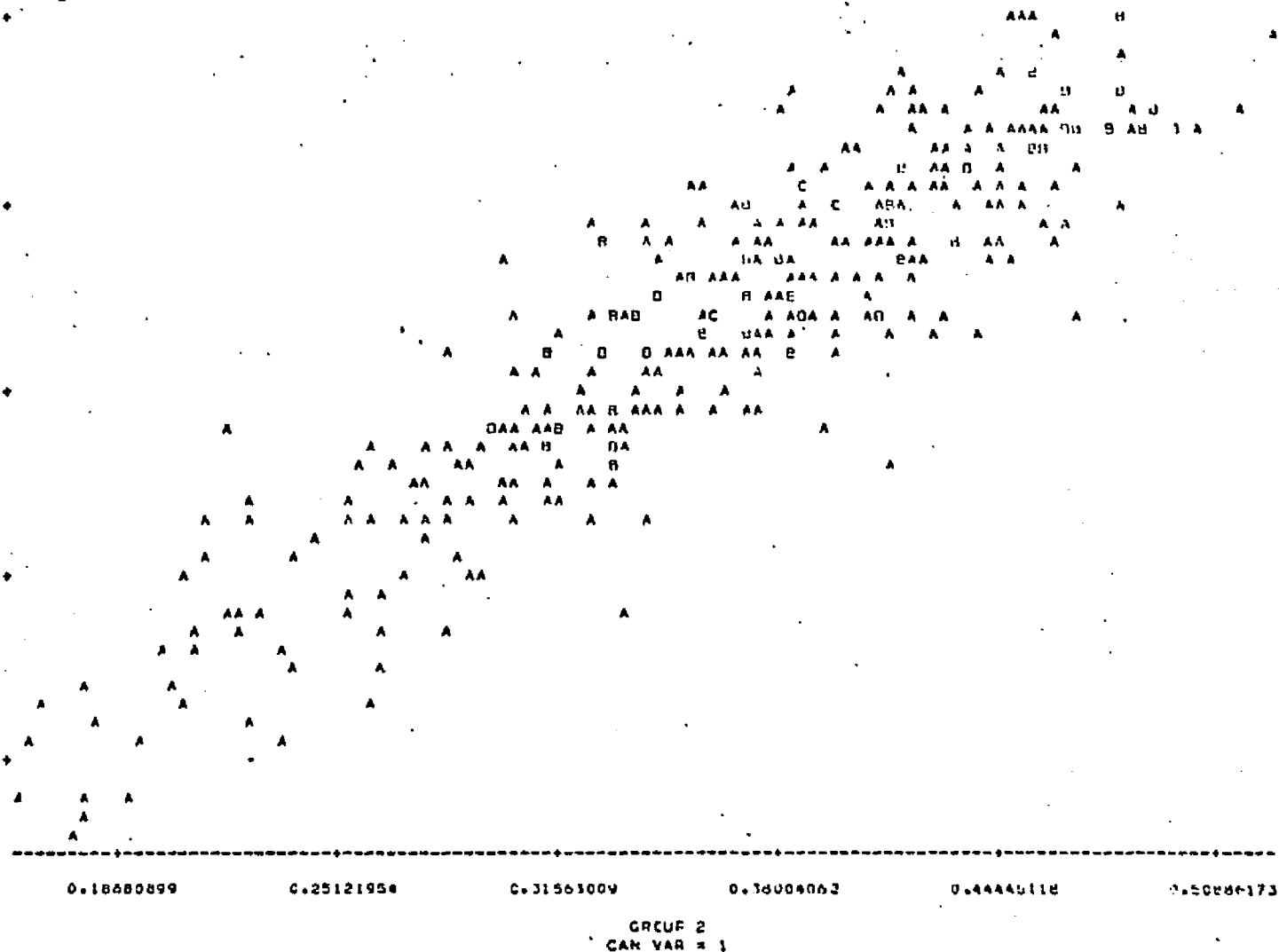


Fig. 10. Plot of group 1 canonical variable equal 1 versus group 2 canonical variable equal 1 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

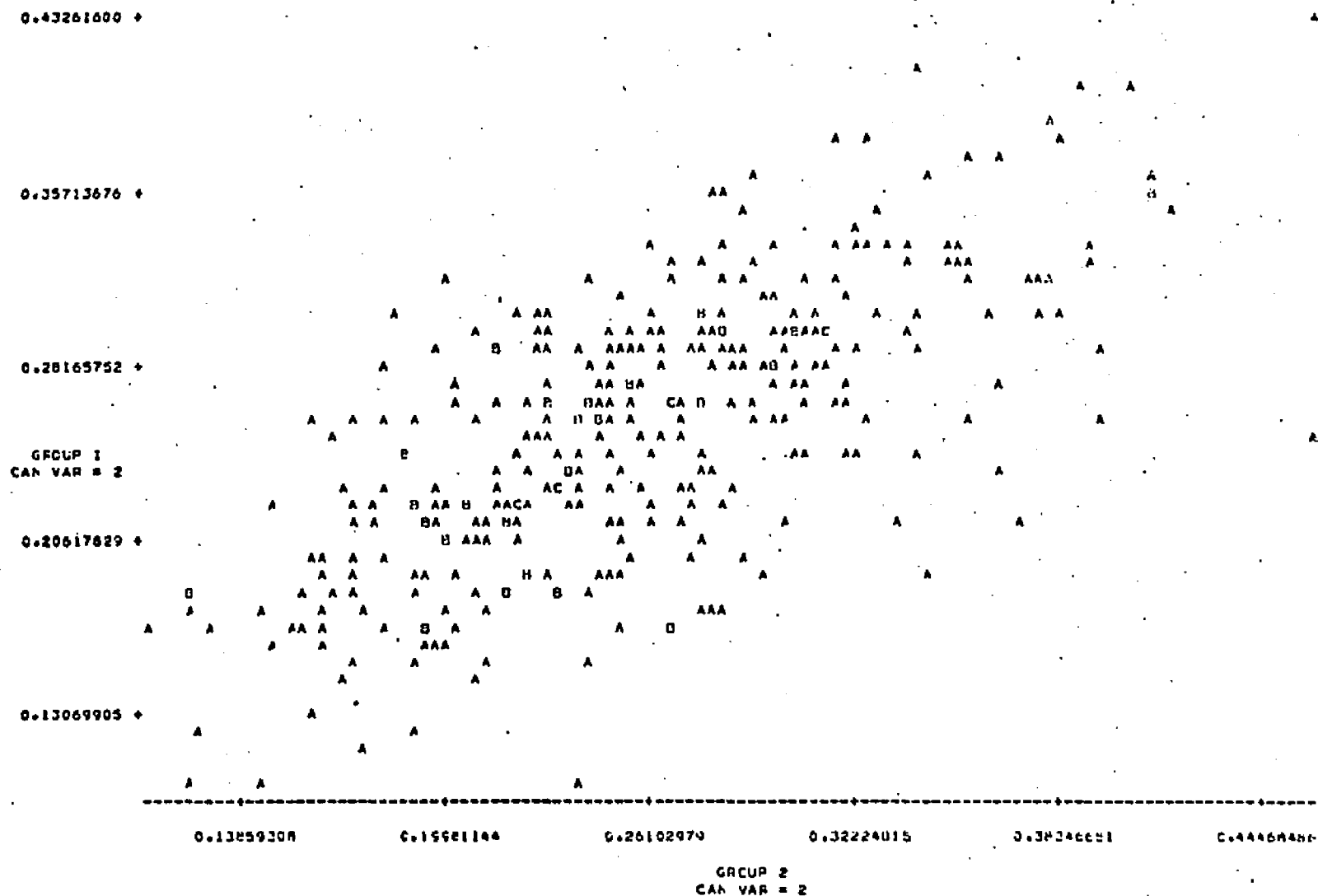


Fig. 11. Plot of group 1 canonical variable equal 2 versus group 2 canonical variable equal 2 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

0.40096652 +

0.25165907 +

0.10235162 +

GROUP 1
CAN VAR = 3

-0.04695583 +

-0.19626328 +

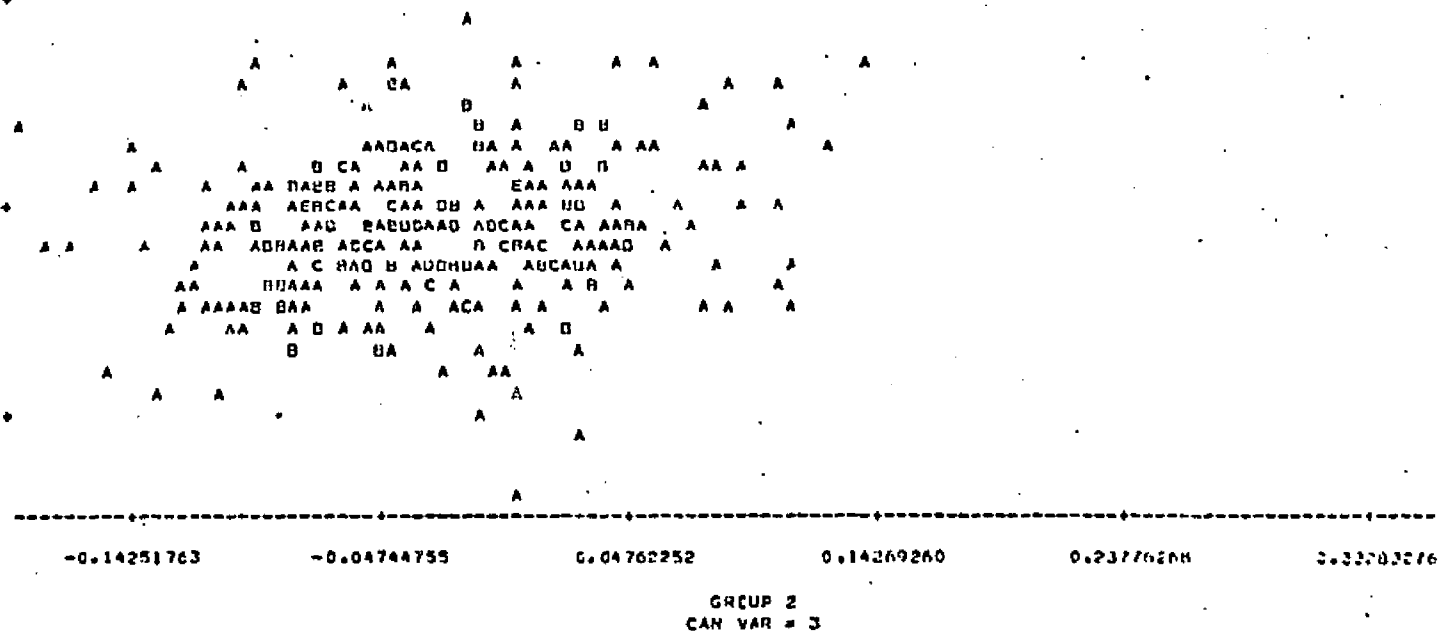


Fig. 12. Plot of group 1 canonical variable equal 3 versus group 2 canonical variable equal 3 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point; A equals 1 observation, B equals 2 observations, etc.

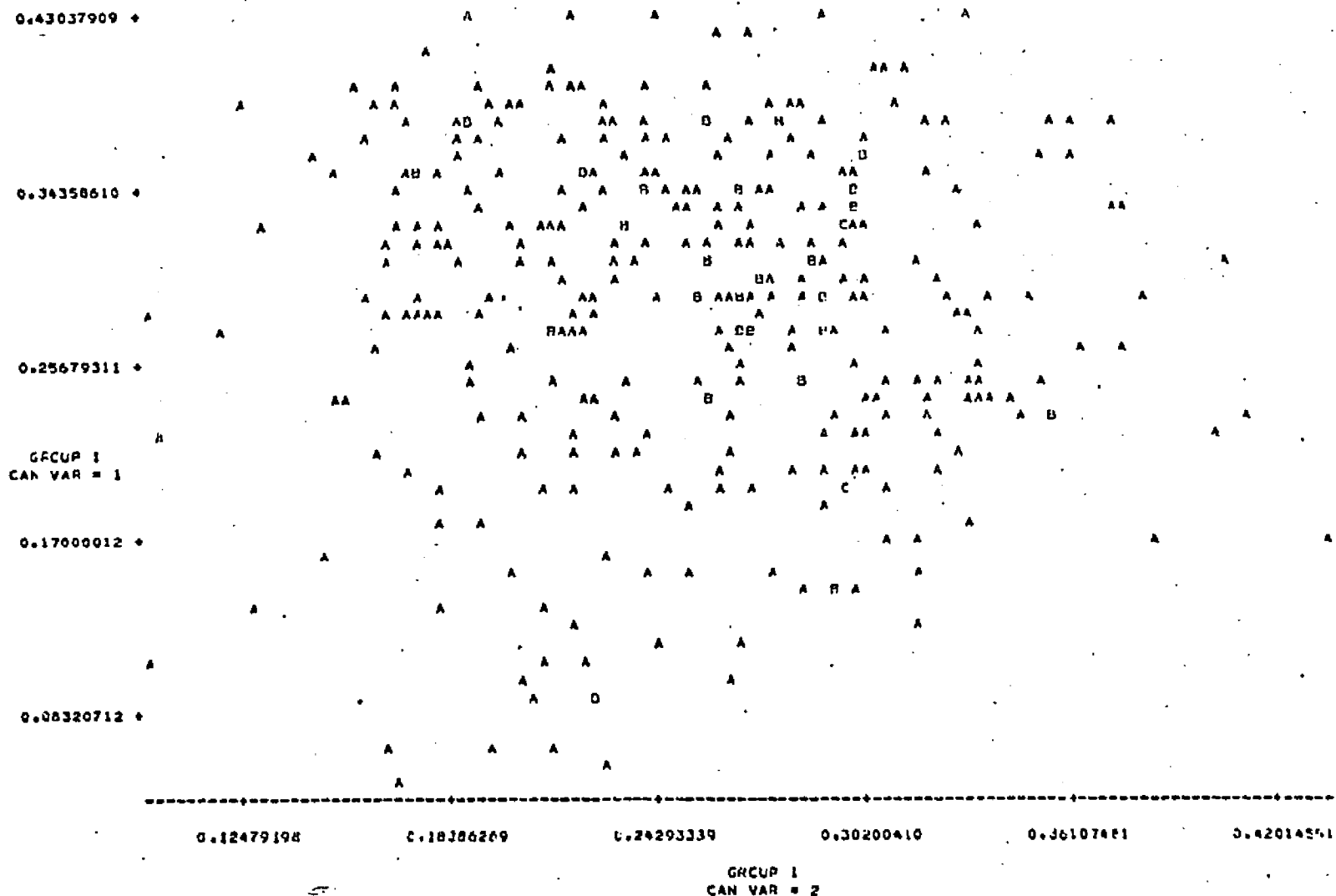


Fig. 13. Plot of group 1 canonical variable equal 1 versus group 1 canonical variable equal 2 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

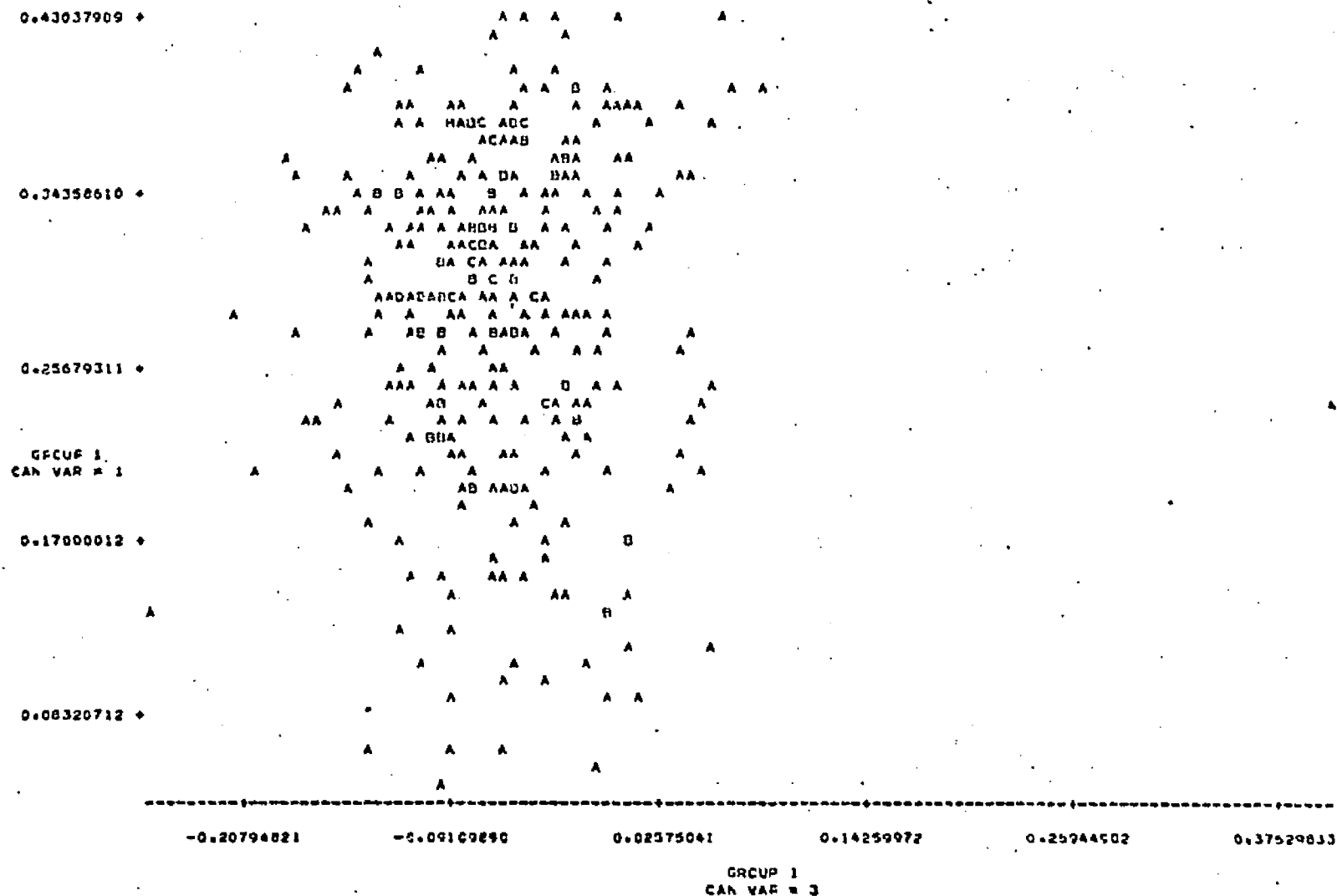


Fig. 14. Plot of group 1 canonical variable equal 1 versus group 1 canonical variable equal 3 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

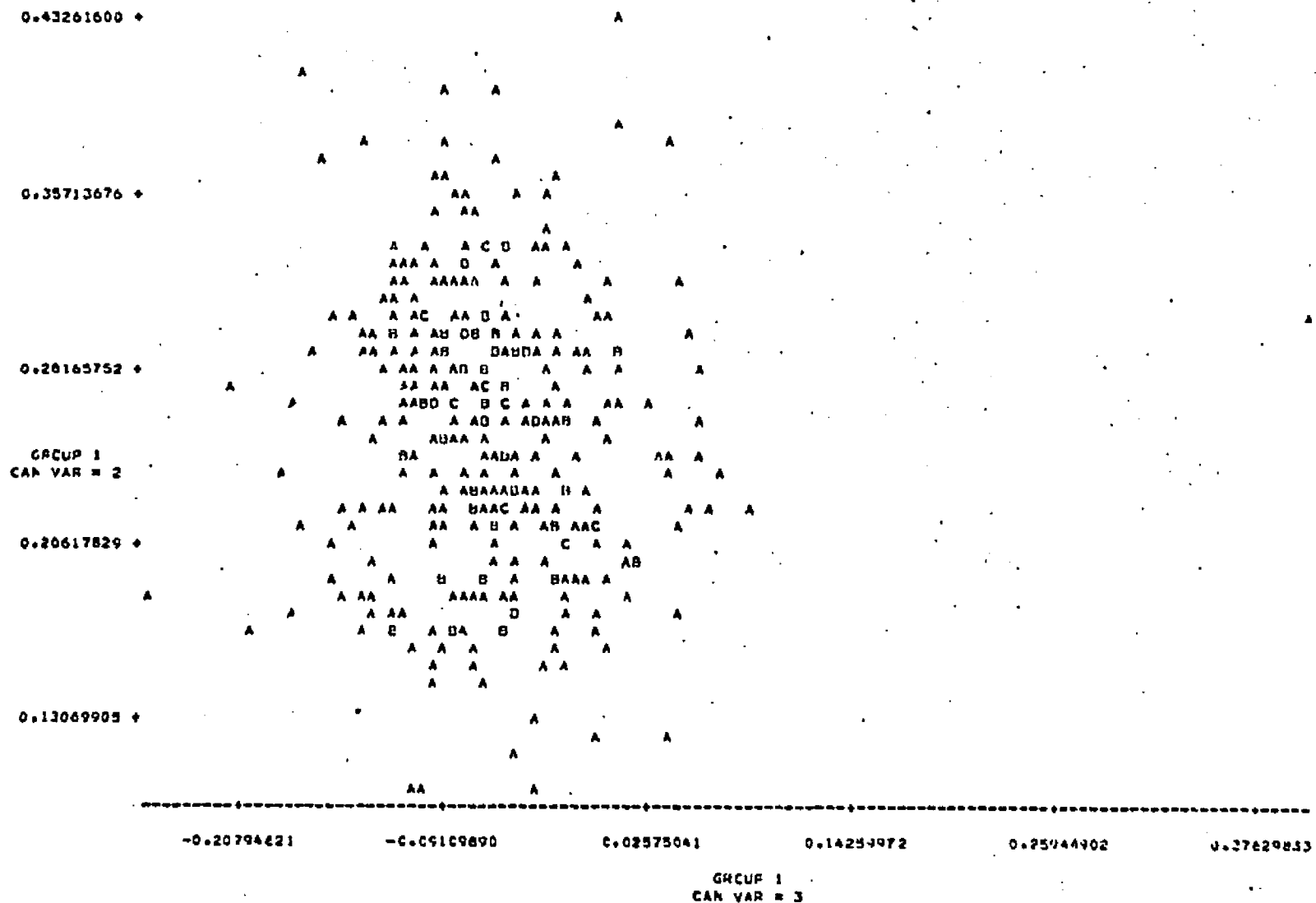


Fig. 15. Plot of group 1 canonical variable equal 2 versus group 1 canonical variable equal 3 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

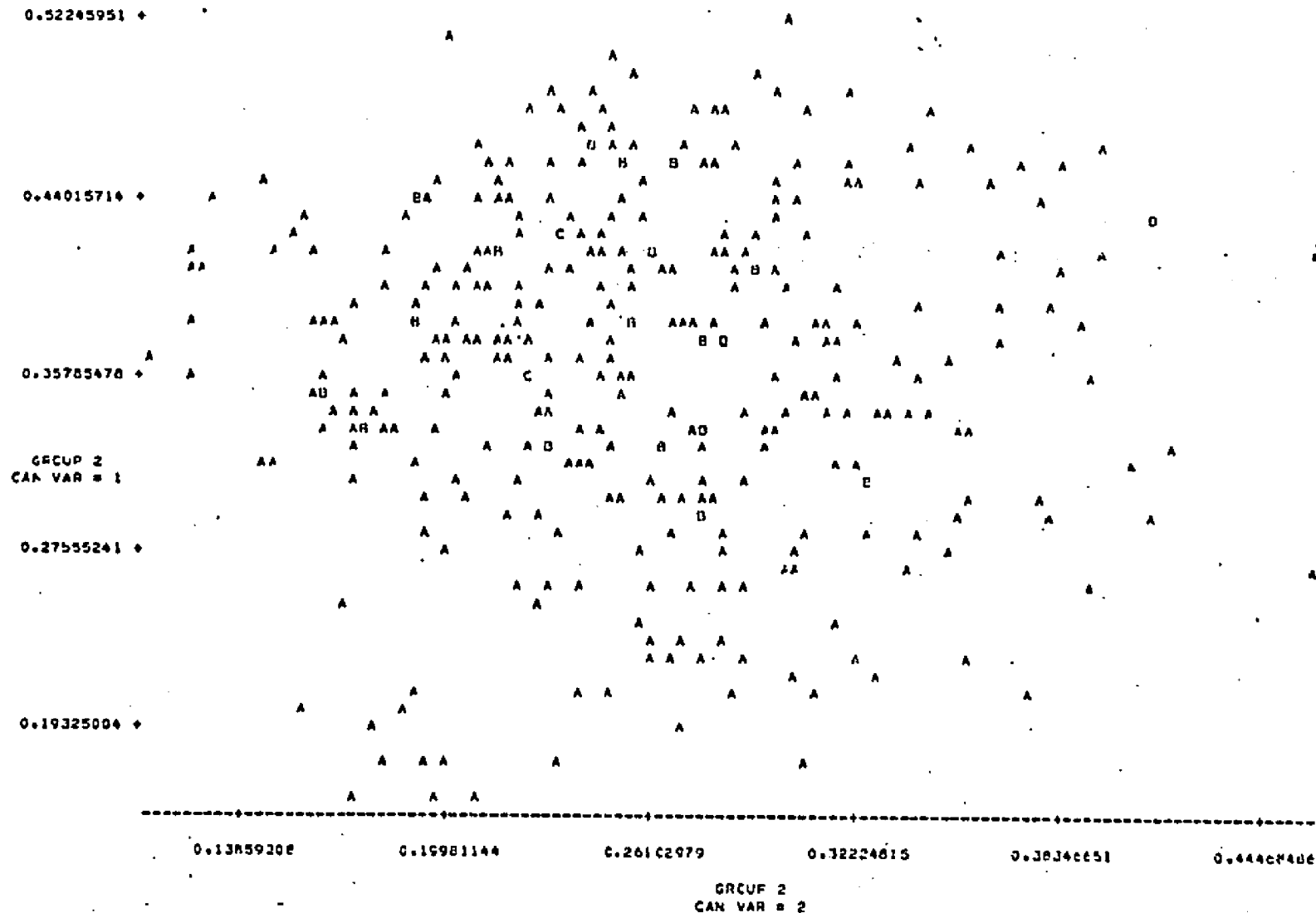


Fig. 16. Plot of group 2 canonical variable equal 1 versus group 2 canonical variable equal 2 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point; A equals 1 observation, B equals 2 observations, etc.

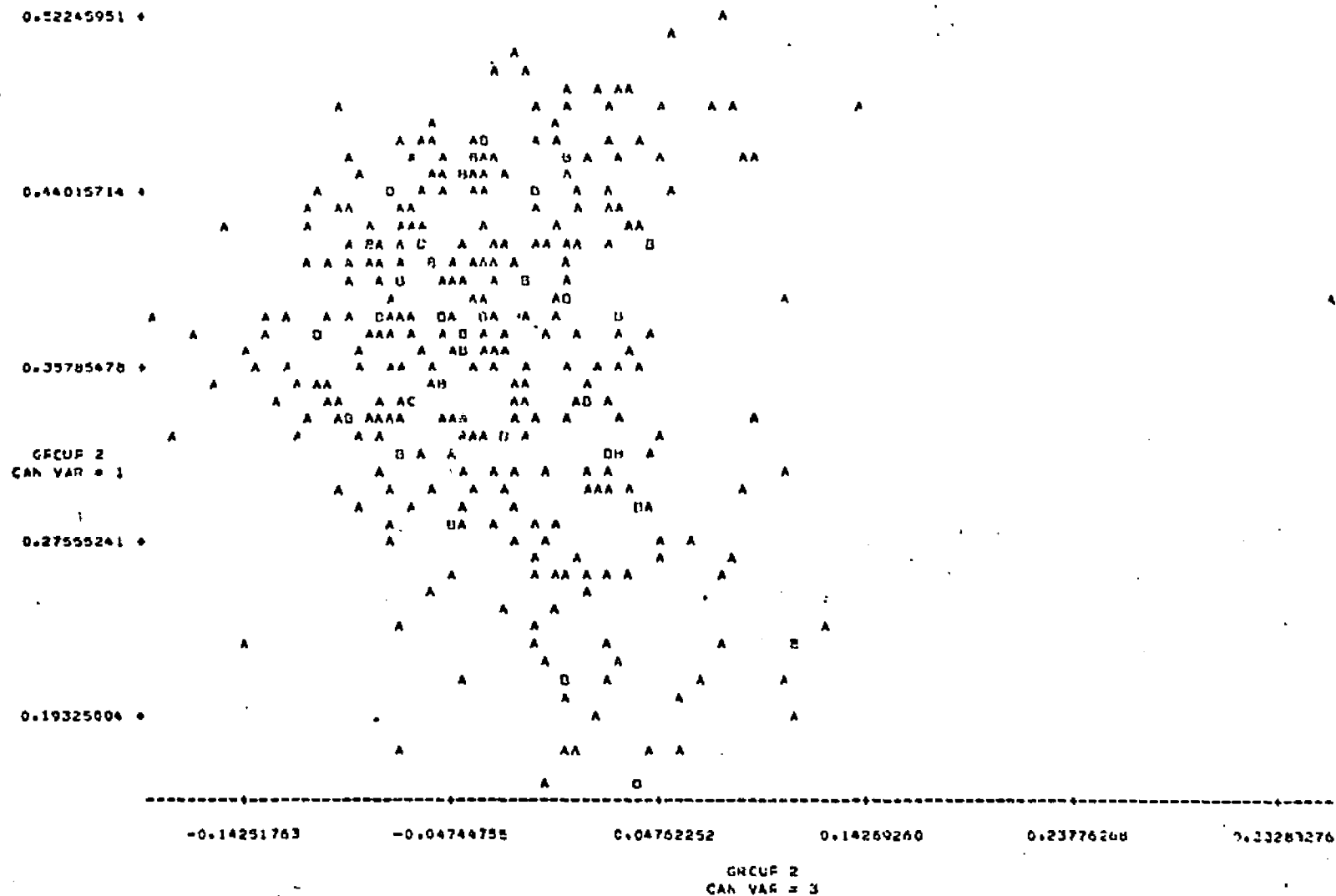


Fig. 17. Plot of group 2 canonical variable equal 1 versus group 2 canonical variable equal 3 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

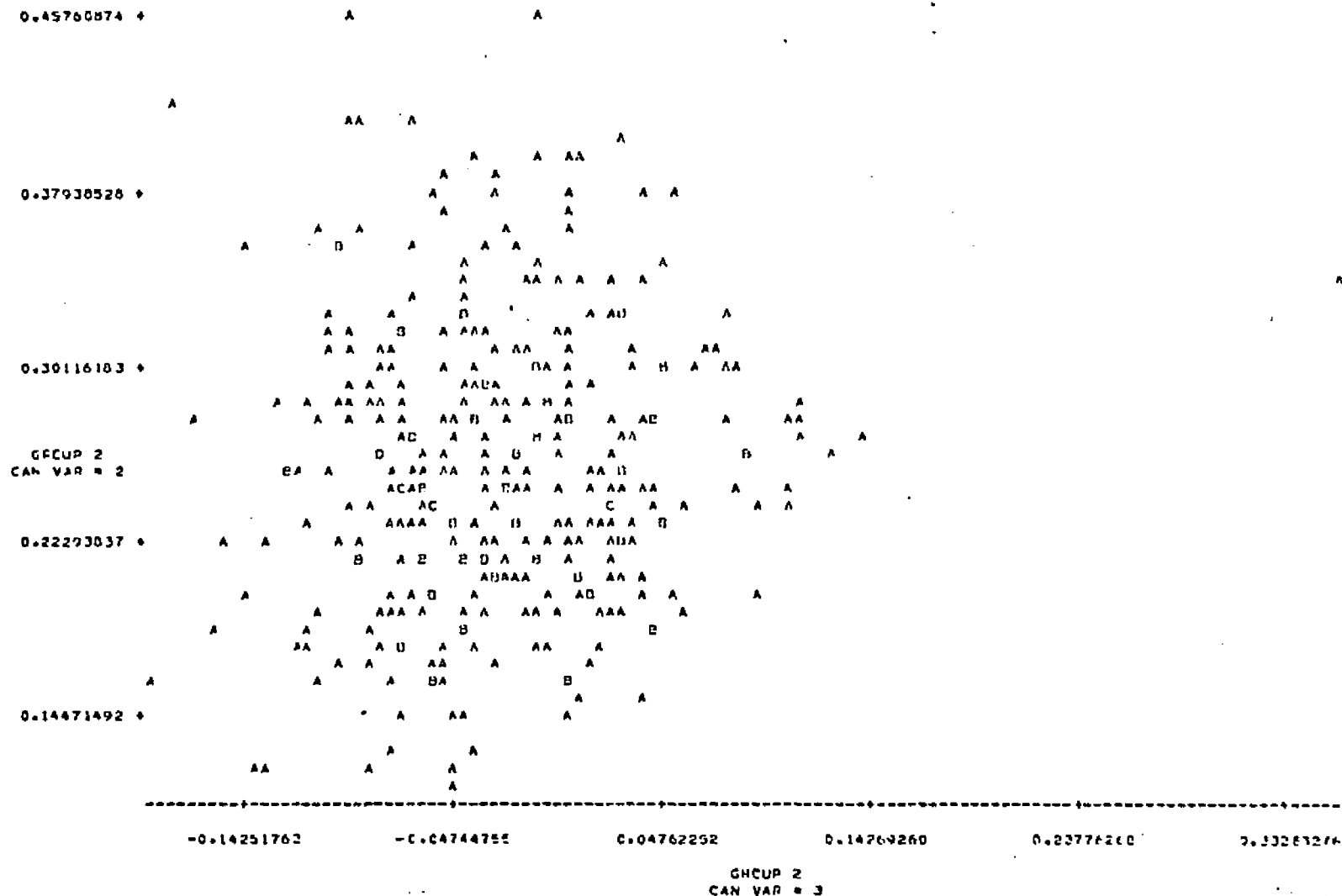


Fig. 18. Plot of group 2 canonical variable equal 2 versus group 2 canonical variable equal 3 for the canonical correlation analysis of the 12 dependent variables. Letters denote number of observations at each point: A equals 1 observation, B equals 2 observations, etc.

VITA

Roger A. Meyer was born in Arenzville, Illinois, on January 23, 1943. He attended public schools in Jacksonville and Ashland, Illinois, and graduated from Ashland Community High School in 1961. He attended the University of Illinois from 1961 to 1962, Cincinnati Bible Seminary from 1962 to 1963, and Milligan College from 1963 to 1966. He received the A.B. degree in psychology from Milligan College in August, 1966.

Mr. Meyer was inducted into the United States Naval Reserve in December, 1966, and received a commission on April 21, 1967. He served aboard the U.S.S. Hancock in Southeast Asia and after his return to the United States, was released from active duty September 18, 1969.

In the fall of 1969, Mr. Meyer entered the psychology program at Louisiana State University and he was accepted into the clinical training program the following spring. He received his M.A. degree in psychology in 1972. He completed his course work and in the fall of 1973 began a clinical internship at the University of Texas Southwestern Medical School at Dallas. Having completed his internship and dissertation, he accepted a position with the Smoky Mountain Mental Health Center in Marble, N. C. He is now a candidate for the Doctor of Philosophy degree at the December, 1974, commencement at Louisiana State University.

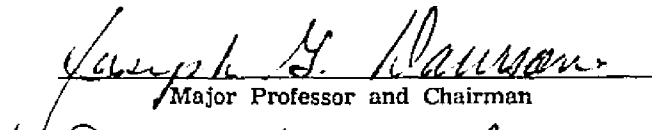
EXAMINATION AND THESIS REPORT

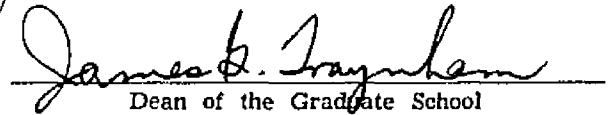
Candidate: Roger Arnold Meyer

Major Field: Psychology


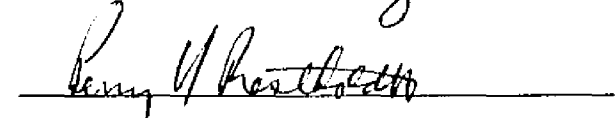
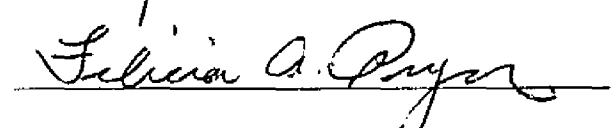


Title of Thesis: Multivariate Analyses of Social and Religious Attitudes

Approved:


Major Professor and Chairman


Dean of the Graduate School

EXAMINING COMMITTEE:

Date of Examination:

September 3, 1974